NEW DIRECTIONS, NEW LEADERSHIP

TAKING THE HELM IN JULY,
DEAN MARK WOLFF EAGERLY BUILDING
CONNECTIONS, COMMUNITY
An Open Invitation

WHAT AN HONOR AND PLEASURE it is to be serving as Dean of Penn Dental Medicine. Since joining Penn in July, everyone has been incredibly welcoming, and I thank you — our alumni, volunteer boards, faculty, students, and staff — for your openness as I take on this new role. I invite and appreciate your input. I take our responsibility as stewards of Penn Dental Medicine’s legacy of leadership very seriously, and I’m humbled by the opportunity to help build on that rich history.

Right now, one of my top priorities is to get to know the many individuals who make up this vibrant Penn Dental Medicine community — to listen, to solicit ideas and feedback, and to set goals together. I can’t overstate how impressed I am by our students, not only by their academic accomplishments, but their wide range of service, extracurricular, and research activities (see related stories, pages 3, 8, and 30), and I’m committed to providing the support and resources to ensure their Penn Dental Medicine experience is a positive one.

To the School’s stellar faculty — you are one of our greatest assets. In this issue, I’m pleased to have this platform to thank our 417 active faculty members — 56% of whom are also Penn Dental Medicine alumni (see page 16). Your skills and knowledge are advancing dental medicine across disciplines.

And to you, our alumni, I believe you are a tremendous resource for us as educators, and I want to hear from you. I have a number of regional visits planned in the coming months (see Calendar, page 44), and I encourage you to come back to the School for Alumni Weekend 2019, May 17–18, where we can meet and you can see the great changes made to the School’s facilities over the past few years.

The latest facilities project — the Schattner Pavilion — opened in June (see page 18), and is part of the current Power of Penn Dental Medicine capital campaign that officially launched this past April. Along with facilities projects, we are raising resources for scholarships, fellowships, research, digital innovation, and added community care for the underserved. We have a number of recent gifts to the campaign to celebrate (see page 4–6), including a $1M scholarship grant from the Delta Dental Community Care Foundation and more than $1M in equipment from Dentsply Sirona to advance digital technology in patient care and instruction.

So this, my first academic year as part of the Penn Dental Medicine community, truly is an energizing time for me. I couldn’t be happier to be here and look forward to working with all parties to advance our mission — my door is always open.

Mark S. Wolff, DDS, PhD
Morton Amsterdam Dean
Welcoming Dean
Mark Wolff
A Conversation with the New Dean of Penn Dental Medicine

Schattner Pavilion
New Space Enhancing Connections Between the School’s Three Buildings

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Remembering Members of the Penn Dental Medicine Community

2018/2019 Calendar
Upcoming Events & Programs

ON THE COVER: Dr. Mark S. Wolff, Penn Dental Medicine’s new Morton Amsterdam Dean, assumed this leadership post in July, coming to Penn Dental Medicine from New York University (see story, page 10). Pictured with him is a group of second-year DMD students who spent their summer break gaining a diversity of experiences across disciplines (see story, page 30).

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Dr. Michel Koo Receives IADR Award for Excellence in Caries Research

Penn Dental Medicine’s Dr. Hyun (Michel) Koo, Professor in the Divisions of Pediatric Dentistry and Community Oral Health and the Department of Orthodontics, has been recognized for his research by the International Association for Dental Research (IADR) as the 2018 recipient of the William H. Bowen Research in Dental Caries Award. The award was presented at the opening ceremonies of the 96th General Session of the IADR, held in London this July.

An international leader in the field of cariology, Dr. Koo’s research has focused on understanding the relationship between biofilms and oral infectious disease and seeking novel therapeutic strategies that effectively control the most pathogenic elements of dental caries. Dr. Koo’s work has provided greater understanding of the mechanisms of cariogenic biofilm development, provided new biofilm methodologies, shown novel anti-biofilm and caries-preventive approaches, and has developed new technologies for delivery of anti-biofilm and anti-caries agents.

Dr. Koo has over 100 publications on cariology and approximately 120 other publications to his credit. He has presented a variety of papers on this subject and was among the speakers at the 2018 IADR General Session, presenting “New Technologies Targeting Cariogenic Biofilms.” Early in his career, Dr. Koo was also recognized as a promising young investigator in the area of cariology as a recipient of the IADR Distinguished Science Award and the IADR Basil G. Bibby Young Investigator in Cariology Award.

Last year, the IADR renamed its IADR Research in Dental Caries Award to the William H. Bowen Research in Dental Caries Award in honor of Dr. Bowen, an American Association for Dental Research (AADR) Past President, who passed away in 2016. Dr. Bowen, who was on the faculty of the University of Rochester Medical Center School of Medicine and Dentistry, was a long-standing member of the IADR and served as the 67th president of the Association, the 10th president of the AADR, and as an IADR treasurer.

“William Bowen was a beloved mentor, colleague and friend,” says Dr. Koo, who completed a postdoctoral fellowship in oral biology at the University of Rochester and served on its faculty before joining Penn Dental Medicine 2013. “So this is a particularly meaningful and very special award for me.”

Supported by Johnson & Johnson Consumer Inc., the William H. Bowen Research in Dental Caries Award is one of the IADR Distinguished Scientist Awards and is one of the highest honors bestowed by the IADR. The award is designed to stimulate and recognize outstanding and innovative achievements that have contributed to the basic understanding of caries etiology and/or to the prevention of dental caries.

TMJ Disease in the Growing Patient

Upcoming in December, Penn Dental Medicine will present TMJ Disease in the Growing Patient — the 2nd biannual symposium of the Penn Center for TMJ Disease within the School’s Department of Oral & Maxillofacial Surgery/Pharmacology. The program will be presented December 8 at the Penn Center for Advanced Medicine with an optional second day hands-on session December 9.

This symposium is designed to guide practitioners in the initial evaluation, diagnosis, and treatment of the pediatric patient with temporomandibular joint disease. Topics will focus on the growing facial skeleton, preventing disease progression, and recognizing distinct pediatric conditions affecting the TMJ. Speakers will utilize evidence-based diagnosis, treatment, and decision-making approaches to commonly encountered conditions in the growing patient.

To learn more and to register, visit www.dental.upenn.edu/TMJ2018.
Students Join with Philly Phaces to Support Children Living with Craniofacial Anomalies

For fourth-year student Jude Han (D’19), his interest in medical and dental cases associated with craniofacial anomalies grew out of personal experience — he was born with a bilateral cleft lip and palate. So as a first-year student, when he had the chance to shadow Dr. Kristen Lowe, a craniofacial orthodontist at that time in the Division of Plastic and Reconstructive Surgery at Children’s Hospital of Philadelphia (CHOP), he jumped at the opportunity. It was Dr. Lowe who introduced him to Philly Phaces, a nonprofit that supports patients with craniofacial anomalies and their families.

"After getting to know Philly Phaces and attending some of their events over the years, I thought it would be beneficial to have a club within the dental school to provide opportunities for dental students to interact with Philly Phaces families and to learn about their stories," says Jude. To that end, he launched the Philly Phaces at Penn Dental club in January 2018.

This summer, the club hosted the organization's first annual gallery exhibition at Penn Dental Medicine, drawing over 70 attendees for a gallery viewing of portraits and personal stories of Philly Phaces members. The event also included a talk by Dr. Leanne Magee, a pediatric psychologist at CHOP, who discussed the psychosocial considerations for patients with craniofacial conditions. Peer mentors of Philly Phaces also explained the work they do through craniofacial awareness assemblies in local schools.

The mission of Philly Phaces is to empower children, adults, and families living with facial differences in the Philadelphia area, providing peer support, advocacy, and resources. The organization is comprised of volunteers, including parents, health professionals, and young adults with appearance differences, who help children and their families navigate the medical, social, and psychological issues associated with appearance differences.

The goal of Philly Phaces at Penn Dental is to support and collaborate with this local organization to increase awareness of facial differences in the community and to provide meaningful experience for dental students in learning more about these conditions and dental care for this population. Since forming in January, the club has organized fundraisers, coordinated Philly Phaces events with dental students, and hosted the gallery event in June. Plans are in development for events in this academic year.

Kimberly Wiley (D’21), one of the founding members of the club, looks forward to building the group’s activities and membership. "We hope the club will continue to grow," she says, "as we continue to foster this partnership with the local families of Philly Phaces."

ABOVE: Members of the Philly Phaces at Penn Dental club with a Philly Phaces-member poster that was part of the gallery exhibition held this summer.
ON CAMPUS

Power of Penn Dental Medicine Campaign Spotlight

The University of Pennsylvania officially launched a new capital campaign — the Power of Penn: Advancing Knowledge for Good — this past spring, focused on raising resources to grow inclusion, spark innovation, and accelerate impact throughout Penn. All Penn schools and centers are part of the campaign. At Penn Dental Medicine, the Power of Penn Dental Medicine campaign is raising an additional $20 million of a $55 million goal ($35 million raised in quiet phase) over the next three years to advance research; produce leaders of tomorrow through facilities improvements, digital innovation, and scholarships; address unmet oral health needs through expanded community programs; and build unrestricted funds.

Here we spotlight four key gifts to the campaign made over the past five months.

Delta Dental Awards $1M Scholarships Grant

Penn Dental Medicine students with a passion for serving vulnerable patients will now have a new resource to support their interests and goals thanks to a $1 million scholarship grant from the Delta Dental Community Care Foundation. The Oral Health Education grant will endow in perpetuity the awarding of two $25,000 scholarships each year to fourth-year DMD students who desire to work in an underserved area after graduation and who have demonstrated a commitment to community outreach during their studies. The grant award was announced in August and the first application cycle opened this fall for interested candidates in the current third-year class.

“While all of our students gain experience serving the underserved through our community-based service learning courses, we see a significant number of students with a great interest go above and beyond what’s required and develop extensive experience in the community,” says Dr. Joan Gluch, Division Chief of Community Oral Health, and co-director of the grant with Dr. Olivia Sheridan, Assistant Dean for Admissions. “What’s exciting about this scholarship is that it will provide the support that some students need to ultimately pursue this path after graduation.”

The scholarships, which will not reduce a student’s scholarship package from other Penn Dental Medicine resources, are intended to lighten overall expenses and debt during the recipient’s fourth-year of study with the goal of clearing a path for a student to pursue a career in community-based dentistry.

In addition to completing a minimum of 250 hours of community-based service and finishing all their DMD requirements on time in their fourth year, recipients must demonstrate employment in a medically underserved or health professions shortage area by October of their graduating year and commit to two years in that role after graduation.

Over time, Penn Dental Medicine foresees the fund also contributing valuable data to community health needs assessment. “These new dentists will be a valuable cohort to track to assess the impact scholarships can make in drawing more dental graduates into community-based service,” explains Dr. Gluch. “We will create a mechanism to remain connected to the Delta Dental scholars and to collect data on practice patterns to help inform our understanding of oral health of vulnerable patients and communities.”
A new fellowship has been established that will support and encourage study across disciplines. The Dr. Thomas P. Sollecito One Health Fellowship in Oral Medicine will provide financial support for educational programming within Penn Dental Medicine’s Department of Oral Medicine for veterinary dentists or oral medicine fellows with an interest in veterinary oral medicine. The fellowship was established through a gift from Dr. Jamie G. Anderson, a practicing veterinarian from California.

The fellowship is named in honor of Dr. Thomas Sollecito, Professor and Chair of Oral Medicine, who will administer the programming. Dr. Sollecito has shown a long-term interest in oral conditions of veterinary patients and has mentored Dr. Jamie G. Anderson, a diplomate in Veterinary Dentistry and Internal Medicine since 2004.

The fellowship is named in honor of Dr. Thomas Sollecito, Professor and Chair of Oral Medicine, who will administer the programming. Dr. Sollecito has shown a long-term interest in oral conditions of veterinary patients and has mentored Dr. Jamie G. Anderson, a diplomate in Veterinary Dentistry and Internal Medicine since 2004.

After earning her Doctor of Veterinary Medicine degree from UC Davis in 1989, Dr. Anderson completed an internship in small animal medicine and surgery at Penn Vet and continued on at Penn to complete a residency in veterinary dentistry in 1991, and a residency in small animal internal medicine in 1993. She is board certified in veterinary dentistry and internal medicine and focuses her clinical and research efforts in Oral Medicine. Dr. Anderson appreciates the important role of oral mucosal disease in animals and envisions subspecialty development in veterinary dentistry.

“I am excited to offer this fellowship as a means toward understanding the frequent chronic and painful oral mucosal diseases in our household cats and dogs,” says Dr. Anderson. “Painful diseases in cats and dogs occur commonly, yet we know very little about them. With the help of the Oral Medicine Department, we hope to make inroads into answers.”

Drs. Anderson and Sollecito developed the fellowship program and hope to recruit an interested clinician within this academic year. They anticipate that the two-week fellowship will support the One Health concept between Oral Medicine specialists at University of Pennsylvania and veterinary dentists interested in veterinary oral medicine and who are committed to lifelong learning. The successful applicant will be engaged in a two-week immersion program in clinical oral medicine. The program will include observation in patient care and active participation in rounds, while having an opportunity to discuss and design a research topic.

Gift to Expand Nutrition Education

Dentists have a unique opportunity to observe and provide guidance to their patients about the critical impact nutrition plays in attaining good oral and general health. A new $250,000 gift from Penn Dental Medicine Board of Overseer Dr. Joanne Chouinard-Luth (D’79) and her husband, John Luth (WG ’76), will provide valuable resources to enhance nutrition programming and clinical support for faculty, students, and patients at Penn Dental Medicine.

The Penn Dental Medicine Nutrition Education Program will expand existing dental education in nutrition using a patient-centered approach. Housed jointly within the Department of Biochemistry and the Division of Community Oral Health, the program will fund recruitment of a Registered Dietician to join the teaching staff at the dental school, and create education “teams” that include designated student fellows, who will help assess, develop, implement, and evaluate evidence-based clinical nutrition teaching materials for students and patients.

Dr. Chouinard-Luth has had a lifelong interest in the topic of nutrition. After obtaining her DMD from Penn Dental Medicine in 1979, she went on to complete a Master’s in Public Health from the University of Chicago, a Master’s in Nutrition Science from Columbia, and a chef’s certification from the Institute of Culinary Education in New York City. Dr. Chouinard-Luth is passionate about breaking down professional silos and stimulating a dialogue about nutrition that will result in the mitigation and prevention of chronic disease and better health for all.
ONCAMPUS

Dean’s Council Welcomes New Members

Penn Dental Medicine recently welcomed two new members to its Dean’s Council — Dr. Anil Idiculla (GD’06) and Dr. Jeff Grove (D’04) — both bring close ties to the School as alumni. The Dean’s Council acts as an external advisory group to the Dean on matters relevant to advancing the mission and eminence of Penn Dental Medicine.

Dr. Idiculla is a 2006 graduate of Penn Dental Medicine’s orthodontics program and was chief resident during his time here. He presently serves on the orthodontics faculty at the University of Colorado at Denver and runs a multi-location private practice in the metro-Denver area. He holds a DMD from Nova Southeastern University. Dr. Idiculla was an active member of Penn Dental Medicine’s Orthodontics Centennial Campaign and participates in many professional societies on a local and national level. He is a frequent speaker, including to students at Penn Dental Medicine.

Dr. Jeff Grove, a 2004 DMD graduate of Penn Dental Medicine, is principal of Grove Dental Group, a comprehensive dental care center located in Wyomissing, Pa. He is also the co-founder of Dynamic Growth Dental Support, a new dental services organization, and is a frequent speaker on business management best practices. Grove Dental Group is known for its active engagement in the community, offering charitable service days through “Dentistry from the Heart,” a worldwide nonprofit organization dedicated to providing free dental care to those in need.

Members of the Dean’s Council have made Penn Dental Medicine a priority in their charitable giving, serve as ambassadors for the School, and help to engage alumni as well as current and prospective students.

Advancing Digital Innovation

Technology is revolutionizing the practice of dentistry, and Penn Dental Medicine is committed to not only integrating the latest digital tools into its education, research, and clinical programs, but to continue its tradition of innovation and become a global leader in digital dentistry. Advancing these efforts is a major educational grant from Dentsply Sirona. This past June, the company committed more than $1 million in equipment that will be used by all levels of Penn Dental Medicine students to provide hands-on experience with the application of dental scanners, CAD-CAM design tools, and milling equipment.

Dr. Markus Blatz, Chair of Penn Dental Medicine’s Department of Preventive and Restorative Sciences and Assistant Dean for Digital Innovation and Professional Development, has led a yearlong Digital Innovation Initiative, involving faculty from every clinical department at the School. He explains that the objectives of the initiative are to establish a plan to educate a “digitally competent” student/dentist from early in their career; engage in state-of-the-art laboratory and clinical research on new technologies and materials; develop more efficient workflows; and create a digital “footprint” for every patient that is accessible across departments and specialties.

“Over the years, we’ve been able to gain international recognition for our work on laboratory-based CAD/CAM technologies and novel materials in restorative dentistry and prosthodontics. Our recent focus has been on chair-side CAD/CAM systems and integration of digital technologies across all departments and specialties,” says Dr. Blatz. “After a coordinated school-wide effort to establish the type of equipment and resources we would need to achieve our goals, we sought to partner with industry leaders, most notably Dentsply Sirona, given their full suite of equipment for scanning, imaging, and milling.”

The Dentsply Sirona gift will outfit a new CAD-CAM design and milling center to be located in the Lower Concourse of the School’s Evans Building. In addition, multiple, intraoral scanning systems are being placed in the School’s pre- and postdoctoral teaching laboratories and clinics.

Visit www.dental.upenn.edu/powerofpenn to learn more about campaign initiatives.
The Barbara and Edward Netter Center for Community Partnerships at the University of Pennsylvania honored Dr. Joan Gluch and Philadelphia FIGHT as recipients of the third annual Netter Center Faculty-Community Partnership Award. The award was presented in June and the winners shared $5,000 to further develop and expand projects that promote community oral health.

Dr. Gluch, Division Chief of Community Oral Health, and her students have worked with Philadelphia FIGHT, a health services organization for people living with or at high risk for HIV/AIDS, since 2003, providing comprehensive dental health services, oral health education, and community oral health assessments. Penn Dental Medicine alumna Dr. Kari Hexem (D’15) serves as Dental Director at Philadelphia FIGHT, joining the organization after graduation.

The award recognizes not only Dr. Gluch’s collaboration with Philadelphia FIGHT and a number of other community partners, but also her work on academically based community service courses at Penn Dental Medicine. She has incorporated five courses that combine academics and community experiences into the dental school’s curriculum and accreditation process.

“The collaboration between Joan and her partners embodies the Netter Center’s efforts to integrate research, teaching, learning, and service in a meaningful and mutually impactful way,” says Ira Harkavy, director of the Netter Center. “Moreover, Joan’s work to effectively engage Penn Dental Medicine students in community oral health by embedding service learning courses in the curriculum serves as an exemplar for Penn, as well as for dental schools and other professional schools across the country.”

Dr. Gluch has served as a leader of three distinct Penn Dental Medicine clinical outreach programs: PennSmiles, a mobile dental clinic consisting of two buses providing care for Philadelphia school children; the dental care program at LIFE for low-income elderly; and the dental program at the Dr. Bernett L. Johnson Jr. Sayre Health Center for low-income children and adults.

“Joan Gluch was selected for her very significant contributions in education and for the real impact her leadership has had on facilitating dental care programs at many partners in the community,” says Carol Muller, faculty committee chair. “Professor Gluch is an exemplary leader of community engagement work at Penn.”
A TALENTED TEAM

When Sam Kang (D’19) learned that Penn would be hosting its first Catalyzer event, and that his classmate Sam Caruso (D’20) was forming a team, he knew he wanted to be involved. Both students are members of DICE (Dental Innovators, Creators and Entrepreneurs), a club founded by students with a passion for innovation. Kang, who majored in economics and worked as an investment banker before dental school, was eager to blend his insights in business development and dentistry.

“I felt strongly that dental students should be represented at this university-wide event,” he says.

“Dentistry is historically an extremely innovative field,” adds Caruso, who holds an undergraduate degree in bioengineering. “The strong tie between problem-solving and clinical dentistry fills our field with creative thinkers from all sorts of backgrounds.”

Soon both Sams, joined by fellow DICE members Elizabeth Soulas (D’20), Mordy Fried (D’20), and Nick Branson (D’20), formed a team called Odontoblasts and began to discuss possible product ideas, eventually focusing on a toothbrush for the elderly.

INNOVATION AT WORK

Penn Health-Tech purchased the supplies the team would need, and the Odontoblasts arrived at the competition on a March weekend ready to build a prototype. Immediately, Kang was impressed with the environment at the Catalyzer, held in Penn’s Towne Building.

“It was very collaborative, not at all secretive,” he says. “The idea was for teams to talk to each other to help make all of the products even better.” There were 29 teams from across Penn, including Engineering, Arts & Sciences, Medicine, and Nursing.

“Most teams had biomedical or engineering students,” he remembers. “We were the only clinicians.”

“The process of innovation is very much a ‘push and pull’ between identifying a need and validating a proposed solution.”
— SAM CARUSO (D’20)
Global Penn Perio Symposium

Held in conjunction with the annual meeting of the Taiwan Academy of Implant Dentistry, Penn Dental Medicine presented the Global Penn Perio Symposium, “Contemporary Digital Dentistry: The UPenn Experience,” May 19–21, 2018 in Taichung, Taiwan. This 3-day event focused on complete digital workflow in implant dentistry and featured Penn Dental Medicine faculty Dr. Dana T. Graves, Dr. Harold Baumgarten (D’77, GD’82), Dr. Yu Cheng Chang (GD’15, GD’16, D’19), and Dr. Jonathon Korostoff (D’85, GR’91, GD’92) from the Department of Periodontics and Michael Bergler, who directs the School’s CAD/CAM Ceramic Center. Over 400 people attended the meeting.

One month following the symposium, a group from Chung Shan Medical University in Taiwan visited Penn Dental Medicine, led by Professor Chun-Cheng Chen, Chair of the Department of Periodontics. They participated in a week-long course that focused on a digital approach to treating the partial and complete edentulous patient.

Global Update: Programs in Taiwan, China

Global Penn Perio Symposium
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Stem Cell Symposium Upcoming in Beijing

Bringing together researchers from throughout China, Penn Dental Medicine will present an Orofacial, Bone and Stem Cell Research Symposium at the Penn Wharton China Center (PWCC) in Beijing on November 17. This is the third symposium to be presented by Penn Dental Medicine through support from Penn’s China Research and Engagement Fund (CREF). The School was among the inaugural recipients of the CREF awards, established by Penn to stimulate and support activity in China and engagement with the PWCC, which opened in March 2015. Dr. Syngcuk Kim, Associate Dean for Global Affairs & Continuing Education, is the principal investigator of Penn Dental Medicine’s CREF grant; Dr. Songtao Shi, Professor and Chair of Anatomy & Cell Biology, a co-principal investigator on the grant, and Dr. Shuying (Sheri) Yang, Associate Professor in his department, organized this program.

The symposium will focus on the state-of-the-art in oral, bone and stem cell research and the potential translational clinical applications. It will feature Penn Dental Medicine faculty who are actively engaged in stem cell and bone research, as well as speakers from Chinese partner institutions, including Capital Medical University, Chinese PLA General Hospital, Fourth Military Medical University, Shanghai Jiao Tong University, and Wuhan University.

EDITOR’S NOTE: At press time, we learned that a Penn Dental Medicine team took 3rd place in the second Rothberg Catalyzer held in October for an idea to use fluorescent light to screen for childhood caries.

As the Odontoblasts got to work, it became clear that the toothbrush was not a viable product. They discussed their options with other students and mentors, and made a bold decision to switch to another innovation, a retractable device for capping a needle after an injection.

“Many patients, especially kids, are afraid of needles,” explains Kang. “In our product, a sheath disguises the needle so it’s not as scary, and the cap automatically locks after use so there’s no danger of sticking someone. We felt that our innovation would lessen patient anxiety while enhancing user safety.”

THE ABILITY TO ADAPT
The experience of changing their product in mid-plan was both challenging and rewarding.

“We were very excited by the new directions that our idea took, and grateful for the mentorship we received from faculty and students alike,” says Soulas.

“We were challenged to continually ‘pivot’ our idea based on the feedback we received until we perfected our concept,” adds Fried.

When the time came to present the product, it was the team’s ability to evolve and adapt that impressed the Catalyster’s panel of judges, leaders from the biomedical, pharmaceutical, and business fields. After the top three prizes were announced, the Odontoblasts were awarded a special prize for pivoting their idea to better fit patients’ needs. The team received $500, presented by Dr. Rothberg at the Penn Health-Tech Spring Symposium in April.

A COMMON GOAL
“From meeting other Penn students to pitching our idea in front of the judges, the Catalyster was a fantastic experience,” says Soulas.

Caruso agrees: “It was exciting to get a group together with one goal in mind,” he says. “The process of innovation is very much a ‘push and pull’ between identifying a need and validating a proposed solution.”

Based on its success, a second Rothberg Catalyzer was held at Penn this October.

“I hope competitions like these will help the field of dentistry progress even further,” says Fried.
“I’m excited to be here, for Penn has the desire to be the best and do groundbreaking work; together with the Penn community, I’m ready to do just that.”

— DEAN MARK WOLFF
In July, Penn Dental Medicine welcomed Dr. Mark S. Wolff as its new Morton Amsterdam Dean. With his appointment, he became the twelfth dean to lead the School of Dental Medicine since its founding in 1878.

Dean Wolff’s eagerness to connect with the Penn Dental Medicine community was apparent from the start. He began his first official day on campus greeting faculty, staff, and students with coffee, donuts, and an open invitation to meet and talk, spending the day visiting throughout the School. Indeed, a commitment to building and strengthening ties within the Penn Dental Medicine community is a priority for Dean Wolff. Since arriving, he has hosted a reception for faculty and staff as a thank you for their contributions, organized town hall meetings and individual class lunches to hear from students, planned a series of events to meet alumni, and is regularly carving out time in his schedule to visit students, patients, and faculty in the School’s clinics. In fact, when talking with Dean Wolff about taking on this leadership post, community emerges as a common theme — from how he views the culture he wants to promote within the School to the role he sees for the School, students, and practicing clinicians.

Dean Wolff, who also holds an appointment as Professor in the Department of Preventive & Restorative Sciences, comes to Penn Dental Medicine from the College of Dentistry at New York University (NYU), where he served since 2005, most recently as Professor and Chair of Cariology and Comprehensive Care and Senior Associate Dean for Development and Alumni Relations. He brought bold and innovative thinking to his role at NYU, where he led more than 400 faculty and staff. Among programs there, Dean Wolff designed and implemented the world’s largest electronic dental-health record and fully digital imaging system. He also led a school-wide initiative to emphasize duty, altruism, and community service as foundational components of the educational program and expanded interprofessional educational opportunities for students. Also notable has been his commitment to local and global engagement and to serving individuals with disabilities.

Dean Wolff holds both a DDS (1981) and PhD (1997) from the State University of New York (SUNY) at Stony Brook, where he also served on the faculty for more than two decades before going to NYU.

Just about two months into his deanship, we sat down with Dean Wolff to talk with him about his personal and professional path to Penn Dental Medicine and his goals and visions going forward.
Share a bit about your path into dentistry — what interested you in the field of dental medicine?
I was originally drawn to dentistry by my family dentist. I not only liked what he did, I liked that he got to work with people and families year after year as an integral part of the community, and I decided to pursue family practice dentistry. After graduation and a residency in general dentistry, I opened my practice in Stony Brook, N.Y., not far from the dental school where I graduated. I was there for 36 years, and in fact, I just closed it before starting the deanship. As dentists, we get to make people smile — that is an incredible profession.

How did you transition to academics?
From the time I finished my residency, I volunteered at Stony Brook, teaching in the clinic. I would go in on Fridays — a day they had difficulty getting faculty to cover. It was in 1987 that I decided to pursue teaching full-time. A family tragedy prompted me to reassess my life at that time, and I decided I wanted to do something that I felt could leave a greater mark on humanity. So, I went back to school to earn my PhD and put in more time teaching, while cutting back on my practice. Shortly after that, I became Director of Operative Dentistry at Stony Brook and continued on there in a variety of teaching and administrative roles, including Director of the Advanced Education in General Dentistry program and Associate Dean for Informatics. I made the move to NYU in 2005.

What have you found most rewarding about teaching/academics?
First, there is nothing better than being paid to learn. As a faculty member, part of my obligation is to be at the leading edge of education and technology and that means each day I wake up and have to learn something new. I look at it as an everyday task. Second, as an instructor, you can have a tremendous impact on students and the way they ultimately practice depending upon your attitude as a teacher. And then, you look at the patient populations served by dental schools — we provide dental care to people who frequently cannot find care elsewhere. When you add all this up, the opportunity we have within a dental school is remarkable, and I take it very seriously. It is such a mentally stimulating environment.

What are some of your top priorities for the School in the coming year?
One of my top priorities is to create an environment that makes everybody happy to come to work and school. I look at that as one of my greatest goals this first year. I want it to become a personal experience where the faculty, staff, and students know the Dean cares for them, and they care for the School and each other. I also want to see mentorship on all levels. If that alone were my first year’s accomplishment, it would be great, but I think we’ll do that and much more.

What do you see doing in this regard here?
I think Penn is in a unique position, for we have so many leaders across disciplines. We need to help design the evidence-based care protocols that can be used to properly and efficiently treat individuals with a broad spectrum of disabilities throughout the lifespan. We need to have a care facility here at Penn Dental Medicine focused on treating patients with some form of disability to give our students significant hands-on experience. And then, we need to start preparing the continuing education programs necessary for dentists in practice who may just be uncomfortable delving into this area. We can’t

CBS just had a report that said 1 in 7 Americans have a significant disability — that is an incredible challenge to manage from a dental standpoint if every dentist doesn’t have comfort and competence treating this population. We are not only talking about developmental disabilities, but also conditions like Parkinson’s, MS, or stroke and trauma. With the aging population, we have more and more people every day entering this disability category. We have done a great job at educating students on medical issues and complexities in regard to oral health, but dental schools have to do much more to make them comfortable and capable in treating these patients.

What do you see doing in this regard here?
I think Penn is in a unique position, for we have so many leaders across disciplines. We need to help design the evidence-based care protocols that can be used to properly and efficiently treat individuals with a broad spectrum of disabilities throughout the lifespan. We need to have a care facility here at Penn Dental Medicine focused on treating patients with some form of disability to give our students significant hands-on experience. And then, we need to start preparing the continuing education programs necessary for dentists in practice who may just be uncomfortable delving into this area. We can’t
be taking everyone to an operating room to clean their teeth, so we need to define the methodologies, train the caregiver and the students to maintain oral health. I would like to see Penn Dental Medicine be the source to say to a mother or son or spouse, here is information on how to manage your loved one’s oral health, and those protocols would be Penn generated. That is the type of thing in which I think we can take leadership.

**What do you think are some of the greatest challenges in preparing students to enter the dental field today?**

There is a plethora of technologies entering the dental field today at such a fast pace and that will only continue to accelerate, so we need to make students excellent lifelong learners. And by that, I don’t simply mean through continuing education courses, but by staying informed through evidence-based literature. They need to learn how to function in an environment where there is so much information out there, so they can sort through it and discern trusted sources to make decisions that are in the best interest of their patients.

**What role do you see the dental school playing in the community?**

I think the dental school is obliged to help improve the quality of life in the community that hosts us. We can help raise the dental education level and provide oral health screenings and general health screenings that elevate the health of the community overall. While the school is already doing some wonderful outreach, expanding our community efforts is a top priority for me. One area in particular where I believe we can make a significant impact is with the senior population at senior centers and nursing homes. I foresee us bringing patients from such centers here and taking our students there.

As a founding member of the American Academy of Cariology, tell me a bit about that organization/your role there.

There had never been an organization that talked to the management of tooth decay. The American Academy of Cariology was set up to do just that — to act as an advocate for oral health care as it relates to tooth decay. There have long been specialty organizations related to other oral disease, but nothing ever existed related to caries, the number one oral disease. Even within the American Dental Education Association (ADEA), there was no section that focused on tooth decay. So first, I joined with colleagues to help create the caries special interest group in ADEA, and then in 2010, the ADEA section on cariology and served as its founding councilor. After that, we felt we had to do more to represent caries as a disease nationally, so two years ago, we launched the Academy.

The part of it that I Chair focuses on developing educational resources related to caries for both professionals and the community, which fits well with what I do. As it turns out, we can do some very good predicting about tooth decay risk, like determining who will not get tooth decay and who will always get it. These patients need to be treated differently. Through the development of caries management by risk assessment (CAMBRA), there is a series of metrics in the electronic health record that help students determine how to manage the patient’s tooth decay risk. Not all tooth decay needs to be surgically restored but does need a dentist to intervene. We have the ability today to reverse or stabilize a spot we see in an x-ray before it becomes a caries lesion. I look at the restoration as a failure of everything I stand for in caries prevention and reversal. Here at Penn, while caries prevention is part of our students’ education, we are going to expand it further and further as time goes by.

**What are your key research interests?**

While my earlier research focused on dental materials and I also worked with Colgate on a toothpaste, I moved to trying to figure out how to manage populations with tooth decay and how we reduce that risk over time. So what methods can we use to control a non-

“One of my top priorities is to create an environment that makes everybody happy to come to work and school.”

— DEAN MARK WOLFF
communicable disease for which we know the risk, the causes, and how to manage it, and yet, it persists? That’s health implementation and that’s what I spend my time doing.

One of my prouder moments in this area was the “Smile Granada” program we did at NYU. It launched in 2010, when we took a group of students to Granada to assess the dental health of the country’s children. In two weeks, we examined 1,075 children and found 83% had cavities, and on average, they had nine cavities each. It was a crisis that the island’s dozen or so dentists could not manage alone, so we worked with the Ministries of Health and Education to design an early-childhood prevention program that essentially turned schools into dental health centers. I took dental students to schools and we trained hundreds of teachers on how to implement a daily, two-minute brushing regimen with students. We also showed them how to apply fluoride varnishes, which they did three times a year. Students were given toothbrushes that they kept at school. It was a great success; two and a half years into the program, new cavities in school-aged children dropped 75%. It was the perfect meeting of the willing educator and a child in need.

Having served as Senior Associate Dean for Development and Alumni Relations at NYU, you bring a unique perspective on engaging with alumni — what do you look forward to in that regard with our alumni?

I look forward to connecting with alumni so they can get to know who I am. I think one of the most important things we can do is use our alumni as a source for understanding what we do well and what we could do better. I also want us to understand their needs and be a support system, whether they are looking for associates or looking for answers to questions. Nothing flatters me more than to have former students call and say I have a question about this material I read about, what are your thoughts? Helping to strengthen those ties alumni have to our school is one of the biggest things I can potentially do as Dean.

On a personal note, how do you enjoy spending time away from work?

Family is very important to me and my wife, Barbara. I’m extremely close to all of our extended family members, so they are a very critical part of who we are. I love gardening; check out the dahlias in the office — they are from my garden at our home on Long Island. We have a boat, and I enjoy saltwater fishing with family and friends, and also enjoy doing household construction projects — my daughter and I finished our basement. Travel and photography is another passion. I scuba dive and have done a lot of underwater photography. I’ve been blessed with opportunities to lecture around the world and explore and photograph the areas I’ve visited. Everything I do I do with a desire to do it well. That is another reason I’m excited to be here at Penn, for Penn has the desire to be the best and do groundbreaking work; together with the Penn community, I’m ready to do just that.
Emphasizing the Medicine in Dental Medicine

TRADITIONALLY, public perception of the dental profession has mainly focused on ensuring health of the teeth and gingiva. It is still common for individuals to make the distinction between a “doctor” and a “dentist,” rather than distinguishing between a “physician” and a “dentist,” which is the more appropriate terminology for these types of healthcare providers. In recent times, oral healthcare providers have not only been appreciated for maintaining oral health, but also for their ability to identify systemic diseases that initially present with signs and symptoms affecting the oral cavity.1 Autoimmune, gastrointestinal, and hematologic disorders are but a few systemic conditions that can initially present with oral manifestations, such as ulcers, masses, and/or chemosensory disturbances.1 Patients with these complaints often present to several healthcare providers for evaluation and management without satisfactory results. In these instances, it is often the dentist who makes the connection between oral and systemic conditions, which starts the patient down the path toward effective management.

The importance of dentists as primary healthcare providers and how they are uniquely positioned to play an expanded role in the detection, early recognition, and management of a wide range of general diseases, has been emphasized recently.2 Some advocate for screening of common medical conditions, such as diabetes and cardiovascular disease, in the dental office setting.3, 4 It has been reported that up to 70% of adults visit the dentist each year, with up to 20% not seeing their physician in the preceding year, which presents an opportunity for dentists to substantially impact the general health of their patients.3

Reports also advocate for increased teamwork among dental and medical providers to ensure optimal patient care.3, 5 Interprofessional collaboration, whereby individuals from two or more professions work together to enable effective partnership and healthcare outcomes, is now an important component of dental education.6 Clinical models of patient-centered care based on interprofessional collaboration are part of the current healthcare landscape and will continue to develop.7 Interprofessional collaboration has been and will continue to be a cornerstone of education at Penn Dental Medicine and successful partnering with the health science schools at Penn has recently enabled integration of collaborative clinical care models into the dental school curriculum.

It must be recognized that a common underpinning to all facets of modern dentistry is medicine. The concept of medicine may vary according to individual perspectives — as a specific form of healthcare pedagogy, as the core of clinical care, and/or as an influence on professional reimbursement metrics. All these viewpoints of medicine have some measure of value and, with deference to Aristotle, the whole is typically greater than the sum of the parts. The value of medicine in dental education and clinical care cannot be overstated and should remain a focus of our profession. Many dental schools in the United States require predoctoral students to complete hospital-based dental externships to allow for greater appreciation of the role of the dentist in a hospital environment and to gain additional knowledge in medicine. As a fourth-year student at Penn Dental Medicine, I completed a hospital-based externship, which not only allowed me to understand more fully the oral healthcare provider’s role in interprofessional care, but also clearly emphasized the importance of medical training for dental professionals in the comprehensive management of patients. Professional continuing education is a vehicle by which practicing oral healthcare providers can maintain and increase their medical knowledge, especially as it relates to current advances in diagnostic and therapeutic strategies for chronic conditions that are common in individuals seeking dental treatment.

The term “oral physician” has been advocated to more accurately describe the role of dentists in today’s healthcare milieu and to align ourselves more closely with physicians in the public eye.6, 7 Adding another term to describe our profession will not necessarily clarify what we do and may possibly lead to further confusion. At the very least, we must maintain, and more importantly, continually emphasize the “medicine” aspect of “dental medicine.” By doing so, it will continue to ensure that the current and future members of our profession are appropriately educated and clinically trained to comprehensively care for their patients and to ensure a “seat at the table” in our continuously evolving world of interprofessional healthcare. 8 (references on page 29)
Thank You Faculty
It is impossible to have a great School of Dental Medicine
without a GREAT faculty! Penn Dental Medicine’s strength
and leadership in dental education, research, and patient
care revolves around the incredible skills and knowledge of
the School’s faculty. As the first issue of the Penn Dental
Medicine Journal to publish since I joined the School as
Dean, I wanted to use this platform to acknowledge and
thank our faculty for their tremendous work and dedication.
Following is the list of our current active faculty (as of Sept.
1, 2018). I would like to acknowledge the contribution the
School of Dental Medicine’s 417 faculty members make to
the oral health of the world and recognize that 234 of these
faculty are Penn Dental Medicine alumni (indicated by their
degrees/class year). Thank you all!

— Dr. Mark S. Wolff, Morton Amsterdam Dean

Department of Anatomy and Cell Biology
Songtao Shi, Chair
Paul A. S. Breslin
Zoran Budimiljia
Joseph J. Cucu
Barry S. Grunwerg
Claire H. Mitchell
Fernando Segade
Michael Speirs
Marco Tizzano
Shuying Yang

Department of Biochemistry
Henry Daniell, Interim Chair
Kathleen Boesze-Battaglia

Division of Community Oral Health
Joan Gluch, Division Chief
Victor Alós
Dafna Berenof
Robert Joseph Collins, D’71
Mary Frances Cummings
Benoit Dube
Lee Durst, D’83
Cecile Felmuc
C’80, D’84, GD’85, WG’85
Roy S. Feldman
Myron Fishbein
Beatriz Garces
Gary Gittleman
Varsha Gogate-Bhuyan
Paul Goodman, D’02
Eric Goren
Kari Hexem, D’15
Alisa Kaufman, D’85
Jill Ann Kischies
Catherine Kuo

Department of Endodontics
Bekir Karabucak, GD’97, D’02, Chair
Louay Abrass, GD’00
Mohammed Alharbi, GD’15, GD’17
Alexandra Antonopoulou
Alan Mitchell Atlas, D’86
Seung-Ho Baek, GD’95
Frederic Barnett, D’78, GD’81
Hornayon Berenji, D’06, GD’16
Sarah Bukhari, GD’15, GD’16
Rina Campbell, GD’15
Prasad Challagulla, D’07, GD’11
Christel Chehoud
Nasir Chivian, D’59
Gilberto Debelian, GD’91
Ameir Ellom, GD’12
Spyridon Floratos, GD’09, GD’10
Saju George, D’95, GD’00
Nadia Gharbi, GD’13
Eudes Gondim Jr.
Garrett Guess, GD’02
Aleksander Iofin
Hirosi Ishii, GD’06
Yi-Tai Jou, D’99
Jean Kang, GD’00

Department of Microbiology
Robert P. Riccardi, Chair
Gary H. Cohen
Joseph Diriemoz
George Hajishengallis
Tetsushi Kajikawa
Flavia Teles
Yan Yuan

Department of Oral Surgery and Pharmacology
Anh D. Le, Chair
Alexandre Balaci
Lee Ryan Carrasco, GD’02
Sung-Kiung Chuang
Bruce J. Cutilli, D’86, GD’92
Douglas Ditty
D’99, RES’00, M’02, GD’05
Brian Ford, D’09, M’12, GD’15
Helen E. Giannakopoulos, GD’02
Eric Granquist, M’07, GD’10, RES’10
Brad Hersh, D’99
Elliot V. Hersh

Department of Oral Medicine
Thomas Sollolecito, D’89, GD’91, Chair
Sunday O. Akintoye
Thomas R. Berardi
Scott DeRossi, D’95, GD’97
Ivone Maria Fernandes-Maia
Katherine France, D’16, GR’16, GD’18
Nazarin Ghobadi
Martin S. Greenberg, GD’68
Thomas Adam Hanak
Irene Kim
Yoshi Kitagawa
Eugene Ko
Arthur S. Kuperstein
Fareed Madani, GD’78, GD’80, D’84
Juan Carlos Mara, D’04
Muralidhar Muppuruappu, D’96
Temitope Omolehinho, GD’14, GD’17
Andres Antonio Pinto
D’99, GD’01, GR’07, M’10, GR’17
Agnieszka Radwan-Wacho, W’10
Stuart Segelnick
Dennis A. Sharkey III, D’89
Geetha Srinivasan, D’06
Eric Stooler, D’99, GD’02
Takako Tanaka, GD’06

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Meryl A. Baumash
Daniel Bills
Alan Borislow
Norman Simon J. Boucher, GD’82
Matthew Busch, GD’99
John J. Covacean
Daniel Cassarella
Kimberly F. Christie, D’06, GD’08
Guy T. Coby, GD’87, GD’90
Patrick Taylor Cuzzoza, GD’97
Ben Drane, C’06, D’12, GD’14
Francis Forwood, D’77, GD’79
Lizeng Gao
Joseph Ghafari, D’83
Peter Michael Greco, D’79, GD’84
Guoqiang Guan
Douglas Harte, D’88, GD’91
John Hayes, GD’86
Eric Howard, D’95
Geelsu Hwang
Patti Lee Werther, D’78, GED’78, GD’81
Maria Velasco, D’10, GED’10
Abhinav Sinha, D’05
Rosana Rosentrater
Milan Patel
Elliott Maser
Rochelle G. Lindemeyer, GD’79
Constance M. Killian, D’81
Sathish Iyer
Hans Hsu
Hamid Hayat, GD’79, D’82
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D’93, GD’95
Andre Ruest, GD’94
Shalin Shah, C’99, D’06, GD’10
Frances W. Short
Jerome H. Sklaroff
Nipul Tanna
D’90, GD’91, GD’10, GD’11
Tejay Thomas, D’06, GD’11
Gustavo Viggiano, GD’89, GD’91
Vanessa Wang
Douglas W. White, D’85, GD’88
Leslie Anne Will

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Hydar Ali
Nataliya Balashova
Signe A. Jonsson Brightman
Cagla Akay Espinoza
Edward T. Lally, GD’73, GR’79
Cagla Akay Espinoza
Signe A. Jonsson Brightman
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Faizan Alawi
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I. Stephen Brown, GD’69
Yucheng Chang, GD’15, GD’16, D’19
Stefan Cheung, C’08, D’11
Gail Childers
Minn Alexandre Cho, GD’01, GD’02
Caleb Cross, D’11, GD’15
Harold A. De Haven Jr, D’59
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Joseph P. Fiorelli
Howard Paul Fraiman, D’91, GD’93, GD’94
Rebekka Gerson, GD’07
Dana Graves
Howard B. Gross
Pouya Hatam, D’95, GD’98
Stephen Huds
Brian Kasten, D’13, GD’17
Yongkun Kim, D’94, GD’98
Jonathan Korostoff, D’85, GR’91, GD’92
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Atsushi Kubota, GD’15, D’17
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Soonjae Lee
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Jeffrey M. Morton
Mana Nejadi, D’04, GD’09
Marc Nevis
Michael Robert Norton
Jonathan H. Orenstein
Campos Perez
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Guilio Rasperini
Louis F. Rose, GD’70
Manal Sabir
Hector Sarmiento, GD’14
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Mehrad Soheili, GD’14, D’17
Panagiota Stathopoulou, D’16
Yu (Taylor) Wang
Arnold Weissgold, GD’65
Eric C. Weiss, C’87, D’90
Michael D. Yasner, GD’83, GD’84, GD’86
Howard Yen

Department of Preventive & Restorative Sciences
Markus B. Blatz, D’10, Chair
Eric Abrams, D’94
Joy Boekstein Abl, D’94
Garry Adair, D’75
Angela Agarwal, D’06
Susan Almusa
Evanthia Andiadoti, D’17
Lilyana Angelova, D’08
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Alan Mitchell Atlas, D’86
Boris Babiner, D’04, GD’08
Thomas Campbell Barber
Michael Bergher
Arlene Dannenberg Bowes, D’77
Eric Cantor
Mihaela Catighera, D’03
Myung (Brian) Chang
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Kevin Mathew Chin
Peter E. Ciampi
Christian Coachman
Beverly Ann Crawford
Hank Cutler
Susan Cutler, D’90, GD’92
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Yvonne Deloache
Pamela G. Doray, GD’76, GD’84
Keith L. Dunoff, D’84
Marek Dworak, D’05
Olimbi Ekemcticoglou, D’05
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Kenneth Hoezle
Jay Harry Hoffman
Sebastian Horvath
Stephen Huds
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Najwa Ghosn Ibrahim, D’96
Patrice Lerradi, MT’80, D’84
Jeffrey Inger, GD’71, GD’72
Donna Jankiewicz, D’88
Leonard M. Jensen, D’77
Irena Jug-Weiss, D’87
Eun-Jung Joan Sathe
Miguel H. Kanno, D’78
Najeed Saleh, D’94
Marlene Bardina-Kelly, D’90
Lihong Kang, D’75
Steven Schwartz, D’76
Maq Serang
Runjan Seth
Tara Sexton, D’88
Rajnikant K. Shah
Shahram Shamloo
Keith Shankar
Khumrur Sheikh
John W Shelton
Olivia Sheridan, D’90, GD’92
Jeffrey Sibner, D’83, GD’84
Mary Sidawi, D’02
Frank Smithgall, C’79, D’83
Eric Spielier, D’84
Joerg R. Strub
David J. Swiecienski
Takuro Takeichi
David Tecosky, D’79
Sorin T. Teich
Neela Thirugnanam
John Wienerbach, D’81, GD’82
Steven F. Weinberg
David Weinstock, D’87, GD’89
Peter Wiesel, D’86
Mark S. Wolff
Morton Amsterdam Dean
Sammy Yacobe
Oksana Yakymiv

This list reflects our current active faculty as of Sept. 1, 2018. We apologize in advance if by chance a name was missed; if that is the case, please let us know at dean@dental.upenn.edu. Also, other alumni interested in getting involved in our academic programs, contact alumni@dental.upenn.edu.
A NEW SPACE FOR PATIENTS and the Penn Dental Medicine community to gather opened in June with the completion of the 2,100-square-foot Schattner Pavilion, enhancing the connection of the three buildings that make up the Penn Dental Medicine campus. This project is the culmination of a series of major facilities projects for Penn Dental Medicine since 2015, which in addition to the Robert I. Schattner Clinic (formerly the Main Clinic) that opened in January, included the Evans Building Centennial Renaissance project that transformed all four levels of the School’s historic Thomas Evans Building.

The Schattner Pavilion builds upon the unified Penn Dental Medicine campus achieved with the construction of the School’s Robert Schattner Center. When the Schattner Center opened in 2002, becoming the School’s main entrance, it linked to the Thomas Evans Building and the Leon Levy Center for Oral Health Research. The Schattner Pavilion adds to that connection.

The two-story Pavilion extends beyond the existing atrium of the Schattner Center, with the south sides featuring direct connections to the Evans Building and north sides leading to the Levy Center. The first floor space is a meeting and gathering space for students, staff, faculty, and visitors to the Penn Dental Medicine campus, outfitted with varied groupings of tables, chairs, and seating areas. Doors from this space open onto the Fonseca Gardens and a seating area there on the courtyard. The second floor is a new patient waiting area for individuals being treated in the Schattner Clinic, which is situated on the second floor of the adjoining Evans Building. The second floor connection to the Leon Levy Center opens into a faculty collaboration space within Levy.

The Pavilion and Schattner Clinic continue the legacy of the late Dr. Robert I. Schattner (D’48), one of Penn Dental Medicine’s most accomplished and devoted graduates. Both projects were made possible through a $15 million gift from Dr. Schattner, made before his death last year. They both are also part of the School’s current Power of Penn Dental Medicine capital campaign — to learn more about the other campaign initiatives, visit www.dental.upenn.edu/powerofpenn.
ABOVE: The second floor of the Schattner Pavilion is a waiting area for patients being seen in the Robert I. Schattner Clinic (the former Main Clinic). (top) View toward the hall leading to the Schattner Clinic. (bottom) View toward the Levy Building. This space looks down onto the Fonseca Gardens below on one side and into the Schattner Center atrium on the other.
Targeting a Viral Vulnerability to Treat Disease

ACCORDING TO VIROLOGIST Dr. Robert Ricciardi, Professor and Chair of Microbiology at Penn Dental Medicine, the line between basic science and translational research is not hard and fast. You can start out pursuing a line of investigation out of pure curiosity and wonder and — with talent and hard work — find yourself with a marketable drug.

“There’s no such thing as knowledge that isn’t useful,” he says.

Dr. Ricciardi has shown this to be true in his work, which began in the realm of basic science and has since hit upon a variety of potential applications for treating viral diseases. The company he founded in 2015, ViRAZE, takes advantage of carefully crafted, interdisciplinary approaches to drug discovery. First up, ViRAZE is taking aim at molluscum contagiosum, a disease that causes skin lesions and affects millions of children and immune-compromised adults around the world. No FDA-approved therapy currently exists.

Not only would a molluscum treatment fulfill an unmet medical need, but surprisingly, could also aid in developing a back-up drug for smallpox, a closely related poxvirus. Eradicated in the population since 1980, smallpox lingers as a bioterrorism threat.

“Molluscum and smallpox replication mechanisms are so alike,” Dr. Ricciardi says, “that when you’re developing a drug aimed at targeting the molecular machinery of one virus you’re simultaneously helping to develop a drug that targets the other.”

His advancements in the arena of viral disease began with a recognition about a key molecule present in every cell of virtually every living organism and pathogen on Earth: processivity factors. Essential for DNA replication, each processivity factor acts like a sliding clamp, holding the polymerase — the enzyme that performs DNA replication — unto the strand of DNA being copied. Without its processivity factor, the polymerase cannot do its job and new strands of DNA will not be made.

In the 1990s, Dr. Ricciardi and colleagues discovered a processivity factor in human herpesvirus 6, a virus that can cause a short-lasting fever and rash in very young children and is implicated in certain adult diseases.

While every organism and pathogen possesses a processivity factor, each can only work with its own individual polymerase. That single fact caused “a lightbulb to go on for me,” Dr. Ricciardi says. If he could find a molecule that would bind to and block the activity of the viral processivity factor without interfering with the human version of the protein, he might have an effective antiviral therapy on his hands.

Dr. Ricciardi’s lab has trained its sights on those potential inhibitors ever since. For years he worked on smallpox, but, because two drugs from other groups were more advanced, one of which is now stockpiled by the United States government, the urgency for studying it had receded until recently. Because smallpox is such a devastating threat, it’s important to have two drugs available, in the event that the smallpox virus becomes resistant to the first.

A short time ago, the National Institutes of Health (NIH) and U.S. security agencies became concerned that the second smallpox drug did not gain FDA approval, leaving only one usable drug in the event of a bioterrorism attack. Dr. Ricciardi was recently contacted by the NIH, which has indicated a renewed interest in continuing work on his smallpox antivirals.

In the last several years, while working on smallpox, molluscum came to the fore. The primary reason for lack of a therapeutic for this disfiguring and sometimes painful disease that affects young children is that molluscum stubbornly resists being grown in a lab.

“I’ve gone back to papers since the 1970s where people tried to grow molluscum in tissue culture,” Ricciardi says. “It just couldn’t be done.”

Several years ago, Dr. Ricciardi teamed with physician and poxvirus expert Stuart Isaacs, an associate professor at Penn’s Perelman School of Medicine, to give it a different shot. While traditional methods didn’t succeed, they worked together with Hancheng Guan and Manunya Nuth, members of Dr. Ricciardi’s lab, to find a novel solution: a hybrid virus.

“We took the processivity factor out of molluscum and inserted it into a prototypic pox virus, called vaccinia, that is used all the time in research,” says Dr. Ricciardi. “It grows beautifully.”
He describes that achievement not as a mere step forward but as a “quantum leap” that is on the path to drug discovery. His lab with Guan and Nuth and with the Isaacs lab began to develop antiviral molecules, targeting the molluscum-specific processivity factor, that could be tested using the hybrid system. Dr. Ricciardi’s long-standing relationship with the medicinal chemistry group at Fox Chase Chemical Diversity Center (notably CEO Allen Reitz and Richard Scott, vice president for research) accelerated the process, as did a new approach in Dr. Ricciardi’s own lab. The approach incorporated biophysics, genetics, and computer-aided processing to identify molecules that could inhibit the activity of the molluscum processivity factor, and thus, the virus’s ability to infect human cells.

“That showed us exactly where to look,” Dr. Ricciardi says. “Combining those three things together gave us two solid leads that are moving us further and further into drug development.”

Three years ago, he worked through the Penn Center for Innovation (PIC) to spin out ViRAZE, a name intended to evoke the idea of “razing,” or destroying viruses as one would raze a building. Michael Poisel of PCI recruited business partners Rajiv Khosla, an experienced pharmaceutical and biotech executive, as the company’s CEO, and Thomas Han, a marketing expert, as head of operations. They’ve also collaborated with Leslie Costello-Soccio, a pediatric dermatologist at the Children’s Hospital of Philadelphia, for her perspective on the clinical needs for molluscum patients.

Dr. Ricciardi is eager to make a difference for the children affected by the disease, but the molluscum therapies are only one of several directions his research into processivity factors is headed. The strategy for blocking virus’s activity via their processivity factors also has him poised to make early-stage breakthroughs in stopping another disease: ocular herpes keratitis, the most common cause of corneal blindness in the world.

“What drives me is figuring out what can this technology do?” he says. “How can I use this technology to meet unmet medical needs? That’s what we’re all about.”

— By Katherine Unger Baillie

May we write YOU a check?
Support the Future of Dental Medicine with a Charitable Gift Annuity

The Penn Charitable Gift Annuity is a great way to make a gift and receive guaranteed payments for life — benefiting YOU today and Penn Dental Medicine in the future.

How it works:
1. Make a gift of $10,000 or more using cash, securities, or real estate.
2. Penn will provide an attractive annuity rate and guaranteed payments for life.
3. The remaining principal in your account will benefit Penn in the future.

A Charitable Gift Annuity can do many things — it can increase your income now or in retirement, provide income and estate tax benefits, and shape the future of dental education, research, and clinical care.

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*Deductions will vary with the IRS Discount Rate at the time of your gift. Assumed rate 3.4%. Charitable Gift Annuities are not investments and are not regulated by the insurance department of any state. Not intended as legal or tax advice. Consult your personal tax advisor.
Penn Dental Medicine Research Takes a Host of Faculty to IADR General Session

This summer, the 96th General Session of the IADR and the IADR PAN European Regional Congress was held in London, drawing dental researchers from throughout the world to the four-day gathering, including a significant numbers from Penn Dental Medicine. A cohort of 15 faculty and students presented research as part of the program on topics that ranged for periodontitis and cariogenic biofilms to stem cells, dental materials, and radiography.

“This is the leading meeting for bringing together dental researchers worldwide, and we were pleased to have Penn Dental Medicine faculty highlighted in several symposia as well as a strong presence by both faculty and students in oral and poster presentations. This reflects the depth and diversity of the School’s research enterprise,” says Dr. Dana Graves, Vice Dean for Research and Scholarship at Penn Dental Medicine.

In addition, Penn Dental Medicine held a reception for Penn Dental Medicine alumni and friends attending the meeting, hosted by Morton Amsterdam Dean Mark S. Wolff. The reception also celebrated the research accomplishments of Dr. Michel Koo, who was recognized at the meeting as the 2018 recipient of the IADR’s William H. Bowen Research in Dental Caries Award (see story, page 2).

The topics and Penn Dental Medicine presenters at the 2018 IADR General Session included the following:

**Symposia Speakers**

- **The Impact of Diabetes and Inflammation on Periodontal Regeneration**
  Dr. Dana Graves, Dept. of Periodontics

- **Dysbiosis and Inflammation in the Periodontium**
  Dr. George Hajishengallis, Dept. of Microbiology

- **Advances in Antibiofilm Materials and Surfaces**
  Dr. Geelsu Hwang, Dept. of Orthodontics

- **New Technologies Targeting Cariogenic Biofilms**
  Dr. Hyun (Michel) Koo, Dept. of Orthodontics and Divs. of Pediatric Dentistry and Community Oral Health

- **Disease Progression as the Main Outcome Variable in Periodontal Clinical Studies: A Critical Appraisal**
  Dr. Flavia Teles, Dept. of Microbiology

- **Regulation of Intraflagellar Transport Protein in Dental Pulp Stem Cells and Tooth Development**
  Dr. Shuying (Sheri) Yang, Dept. of Anatomy & Cell Biology

**Oral Presentations**

- **Interplay of HIF-1α and UPR on Post-Hypoxic Orofacial MSC Survival**
  Dr. Sunday Akintoye, Dept. of Oral Medicine

- **14ARF Negatively Regulates rRNA Processing Factor Dyskerin Independently of p53**
  Dr. Faizan Alawi, Dept. of Pathology

- **The ESCRT Machinery is Recruited in KSHV Assembly and Egress**
  Justine Chiou (D’19)

- **Osteocytes Play a Key Role in Periodontitis**
  Dr. Dana Graves, Dept. of Periodontics

**Hands-on Workshop**

- **What is Preventing You from Getting to Where You Want to be?**
  Dr. Flavia Teles, Dept. of Microbiology

- **Priming Women for Success in Dental Research**
  Dr. Flavia Teles, Dept. of Microbiology

**Poster Presentations**

- **Studying the Bond Strength of Orthodontic Brackets to Ceramic Materials**
  Dr. Saro Atam (D’18)

- **Loading Capacity of CAD/CAM Monolithic Implant Supported Crowns with Three Materials**
  Jackey Cheng (D’19)

- **Fracture Strength of Monolithic CAD/CAM Crowns Made From Two Silicate Ceramics**
  Dr. Julian Conejo, Dept. of Preventive & Restorative Sciences

- **pH Microenvironment-triggered and Biomimetic Nanoparticles for Cariogenic Biofilm Disruption**
  Dr. Yuan Liu (GD’21)

- **Dental X-rays and Meningioma Risk: A 2018 Review & Meta-analysis**
  Dr. Mel Mupparapu, Dept. of Oral Medicine

- **Five Year Biologic Widths of Immediately Loaded Implants in Humans**
  Dr. Alan Polson, Dept. of Periodontics


**BIOCHEMISTRY**

**NEWS/ACHIEVEMENTS**

Dr. Henry Daniell, Professor and Interim Chair, was among the invited keynote speakers at the International Association for Plant Biology Technology, held in Dublin, speaking on novel bioproduction for plant biology and biopharmaceuticals.

**SELECTED PUBLICATIONS**

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


**ENDODONTICS**

**SELECTED PUBLICATIONS**

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


**NEWS/ACHIEVEMENTS**

Penn Dental Medicine hosted the 17th annual meeting of the Academy of Microscope Enhanced Dentistry, Sept. 28-30, organized within the Dept. of Endodontics.

**MICROBIOLOGY**

**SELECTED PUBLICATIONS**

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


**RECENT GRANT AWARDS**

Development of Antiviral Agents for treating Molluscum Contagiosum

Molluscum contagiosum (MC) is a highly contagious skin disease caused by the poxvirus, MCV. MC appears as lesions on the body and face and can last years before resolving. Lesions occur most frequently in children (4%) and immune compromised individuals (5-18%). None of the current treatments are uniformly accepted or FDA approved. The end-goal of this Phase II SBIR will be development of 2-3 advanced leads that will be suitable for IND-enabling studies. The ultimate goal is to provide a topical skin formulation that will safely resolve MC lesions. Funding Source: Fox Chase Chemical Diversity Center Principal Investigator: Dr. Robert Ricciardi, Professor

Roles of KSHV Tegument Proteins in Virion Assembly

This research represents a joint effort from two laboratories with highly complementary expertise to study the structure and functions of KSHV tegument. Roles of two representative tegument proteins, namely ORF45 and ORF64, in virion assembly will be investigated through determining the near-atomic structures of these tegument proteins and elucidating the mechanism underlying these tegument protein-orchestrated budding process. The results will represent a paradigm shift for herpes virus assembly and informs strategies for KS therapies and vaccines. Funding Source: NIDCR/NIH/DHHS Principal Investigator: Dr. Yan Yuan, Professor

Dr. Yan Yuan, Principal Investigator: NIDCR/NIH/DHHS Funding Source: Fox Chase Chemical Diversity Center Principal Investigator: Dr. Robert Ricciardi, Professor

**Microbiology**

**SELECTED PUBLICATIONS**

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NEWS/ACHIEVEMENTS
Dr. Eric Stoopler (D’99, GD’02) was promoted to Professor, effective July 1, 2018; he has been a member of the faculty since 2002.

Department of Oral Medicine faculty played key leadership and advisory roles in the 7th World Workshop of Oral Medicine held in Gothenburg, Sweden, in September. Dr. Martin Greenberg (GD’68), Professor Emeritus, was a member of the Steering Committee; Dr. Thomas Sollecito (D’89, GD’91), Chair and Professor, and Dr. Eric Stoopler (D’99, D’GD’02), Professor, served as Consultants; and Dr. Katherine France (D’16, GR’16, GD’18), Assistant Professor, served as an Assistant Reviewer. In addition, through a NIDCR grant, Chief Resident Dr. Wesley Sherrell (GD’19) participated as an Observer.

SELECTED PUBLICATIONS
A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


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NEWS/ACHIEVEMENTS
The 2nd biannual symposium of the Penn Center for TMJ Disease within the Dept. of Oral & Maxillofacial Surgery/Pharmacology, titled TMJ Disease in the Growing Patient, will be presented December 8 (see story, page 2).

SELECTED PUBLICATIONS
A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


A study from the lab of Dr. Michel Koo used FDA-approved nanoparticles to effectively disrupt biofilms and prevent tooth decay in both an experimental human-plaque-like biofilm and in an animal model that mimics early-childhood caries. See the following article:

FIGHT PLAQUE
A study from the lab of Dr. Michel Koo used FDA-approved nanoparticles to effectively disrupt biofilms and prevent tooth decay in both an experimental human-plaque-like biofilm and in an animal model that mimics early-childhood caries. See the following article:


ORAL MEDICINE

ACADEMIC UPDATE
### PROTEIN KEY TO WOUND HEALING

A healing wound requires new blood vessels to form in order to nourish the newly repaired tissues. A study within the Depts. of Orthodontics and Periodontics has found that the molecule Foxo1 plays a critical role in this process. See the following article:


### SELECTED PUBLICATIONS

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


### NEW RECENT GRANT AWARDS

Enzymatic Approach for Targeting mannans/EPS to Disrupt Cross-kingdom Cariogenic Biofilms

The association between Streptococcus mutans and Candida albicans modulates the development of hyper-cariogenic biofilms that may be relevant in the context of early childhood caries (ECC), one of the most painful and costly infectious diseases affecting toddlers. Inhibition of S. mutans-derived exoenzyme (GHBl) binding and exopolysaccharides (EPS)-matrix assembly on the fungal surface appear to be an essential factor for this unique and highly virulent cross-kingdom interaction. This study will further dissect the dynamics of GtfB binding/EPS production, and assess whether an enzymatic strategy could prevent the onset of severe caries in vivo.

Funding Source: NIDCR/NH/DHHS Principal Investigator: Dr. Geelsu Hwang, Research Assistant Professor

### PATHOLOGY

### NEWS/ACHIEVEMENTS

Dr. Faizan Alawi, Associate Professor and Associate Dean for Academic Affairs, was honored by Penn with the 2018 Lindback Award for Distinguished Teaching.

### SELECTED PUBLICATIONS

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).

Zhang, Q, Nguyen, PD, Shi, S, Burrell, JC, Cullen, DK, & Le, AD. 3D bio-printed scaffold-free nerve constructs with human gingiva-derived mesenchymal stem cells promote rat facial nerve regeneration. Scientific reports. 2018;8(1): 6634. doi:10.1038/s41598-018-24888-w

### ORTHODONTICS

### SELECTED PUBLICATIONS

A selection of recently published work by Penn Dental Medicine researchers (indicated in bold).


ACADEMIC UPDATE


NEW RECENT GRANT AWARDS

The Role of NF-kB in Mesenchymal Stem Cells During Diabetic Wound Healing

This research proposes a central hypothesis that activation of NF-kb in MSCs in diabetic conditions negatively affects hard and soft tissue healing by reducing the number of MSCs and by interfering with the anti-inflammatory function of MSCs. Successful completion of this proposal may further offer an alternative therapeutic approach to consider in the treatment of non-healing diabetic wounds by targeting endogenous MSCs with specific NF-kb inhibitors.

Funding Source: NIDCR/NIH/DHHS

Principal Investigator: Dr. Kang Ko, DScD Candidate

PREVENTIVE & RESTORATIVE SCIENCES

NEWS/ACHIEVEMENTS

Dr. Markus B. Blatz, Professor and Chair, served as program co-chair for the 43rd Annual Meeting of the American Academy of Esthetic Dentistry. Titled “The Stars Are Aligned: Shaping the Future of Excellence in Esthetics,” the educational program focused on the cutting-edge research, techniques, and materials pushing the field of esthetic dentistry toward the future.

Dr. Eva Anadioti, Clinical Assistant Professor and Director of the Advanced Education Program in Prosthodontics, was recognized by the Greek America Foundation and the Philadelphia Business Journal as one of their 2018 40 Under 40 honorees. In addition, she was selected to participate in the Future Leaders in Prosthodontics Workshop, held in London in September.

Dr. Pamela G. Doray, Adjunct Assistant Professor, was elected into Associate Membership of the American Academy of Esthetic Dentistry.

Dr. Joseph F. Newell, Clinical Associate Professor, was elected President of the Academy of RV Tucker Study Clubs, which includes approximately 75 study clubs in the U.S., Canada, Germany, Italy, and Japan that concentrate on cast gold and gold foil restorations.

Michael Bergler, Director of the CAD/CAM and Ceramic Center, was an invited speaker at the European Academy of Esthetic Dentistry Spring 2018 Meeting in Sorrento Italy. He lectured with the world-renowned dental technician Willi Geller on the digital approach as part of the Willi Geller Honorary Lecture on “Strategies for the Planning of Clinical Cases from a Dental Technician’s Perspective.”


Wolff, MS, & Schenkel, AB. The Anticaries Efficacy of a 1.5% Arginine and Fluoride Toothpaste. 2018; Advances in Dental Research. 29(1): 93.

Division of Community Oral Health NEWS/ACHIEVEMENTS

Dr. Joan Gluch, Division Chief, was recognized by Penn with the 2018 Provost’s Award for Teaching Excellence by Non-Standing Faculty.

TEACHING AWARDS

The Class of 2018 recognized faculty with the presentation of the annual teaching awards at Senior Farewell 2018. Pictured with members of the Class of 2018, this year’s recipients included (left to right with awards): Dr. Mel Mupparapu (D’96), Professor of Oral Medicine, the Basic Science Award, presented for excellence in teaching within the basic sciences; Art Kofman, C.D.T., Quality Control Coordinator and the Office of Laboratory Affairs Supervisor, the Senior Outstanding Teaching Award, presented to a faculty/staff member who has gone beyond the scope of his/her responsibilities to significantly impact the class’s education; Dr. Patrice Ierardi (MT’80, D’84), Clinical Assistant Professor of Restorative Dentistry, the Joseph L. T. Appleton Award, presented to a part-time faculty member for excellence in clinical teaching; Dr. Frank Smithgall (C’79, D’83), Clinical Associate Professor of Restorative Dentistry, the Robert E. DeRevere Award, presented for excellence in preclinical teaching by a part-time faculty member; and Dr. Steven Wang (D’09, M’12, GD’15), Instructor, Dept. of Oral Surgery/Pharmacology, the Earle Bank Hoyt Award, presented for excellence in teaching to a Penn Dental Medicine graduate who is a full-time junior faculty member.

REFERENCES


This article has been adapted from an Editorial that was previously co-written and published by Dr. Stoopler (Stoopler ET, Sollecito TP. Focusing on the medicine in dental medicine. Spec Care Dent 2016; 36: 59.)
A SUMMER OF SELF-DISCOVERY

EXPERIENCE ACROSS DISCIPLINES IS ALL IN A SUMMER’S WORK FOR SOME RISING SECOND-YEAR STUDENTS

THE SUMMER BETWEEN the first and second year is the only extended break in the four-year Penn Dental Medicine DMD program, providing an opportunity for students to relax with family and friends, travel, or earn extra cash before the next three busy and challenging years. But for students who choose to use the time for an extracurricular learning experience, Penn Dental Medicine offers a variety of dynamic programs — many utilizing the School’s strong ties to resources across the University of Pennsylvania — that take summer break to a new level.

Here, we highlight a few of those programs and some of the participating students from this year. While some of these experiences offer stipends and/or academic credit, most participants agree that the real draw is the chance to learn something new and meaningful — about the world, about others, and about themselves.

BRIDGING THE GAPS: Serving the most vulnerable in our communities

Each summer, the Bridging the Gaps (BTG) Community Health Internship Program brings together students from all health and social services disciplines across Penn and other Philadelphia universities to serve underrepresented city residents. It is an enlightening glimpse of the challenges many Philadelphians endure in all aspects of their lives, including dental care.

“Bridging the Gaps is an invaluable opportunity to get out of ‘the Penn bubble’ and see the community from the perspective of those who are living in it every day,” says Dr. Joan Gluch, Associate Dean of Academic Policies and Chief of the Division of Community Oral Health, who has coordinated Penn Dental Medicine’s participation in BTG for 26 years.

About 30 dental students apply for roughly half as many seven-week internships at service organizations around the city, Dr. Gluch says. This summer, interns were placed at camps for city youth, an Early Head Start program for young mothers, and a senior citizens day group at Lutheran Social Services, among others.
Learning to listen: Marcus Dassah (D’21) grew up doing community service work in his native Ghana, and was eager to serve struggling residents of his new home city. Along with two medical students, his BTG internship was at Covenant House, a residential center for homeless youth ages 18 to 21 in Germantown. There, he helped residents create resumes, practice interview skills, find professional clothing, and apply for jobs. He also worked with a dental hygienist to provide residents with oral screenings and education, and to help them find dental care.

The mission of Covenant House is to help homeless youth become happy, healthy, independent adults,” he says. “I am so grateful that there is a place that opens its doors to young people who are struggling.”

Marcus, who has two young sons of his own, felt his summer experience has made him more compassionate and mindful of his choice of words, qualities he plans to put to use in clinic this year and beyond. “I learned to listen without making assumptions or judgements,” he says. “You never know where someone is coming from and what they have been through.”

Blending practice with theory: BTG summer interns work four days a week as part of a team that may include medical, nursing, veterinary, and/or social work students from Penn as well as from Temple, Drexel, and Jefferson, all members of the BTG Consortium. On Wednesdays, interns from around the city meet for classes on public health, with topics ranging from gun violence and racial stereotyping to smoking cessation and cultural humility, taught by professors from BTG universities. In September, interns gather again at the BTG Symposium to present posters on their internships.

This powerful blend of practice and theory is a solid building block for careers, says Dr. Gluch: “Bridging the Gaps allows students to gain a sense of themselves as professionals and as leaders with the knowledge and ability to shape community health.”

THE LEONARD DAVIS INSTITUTE OF HEALTH ECONOMICS: Using research to change health care

One of the benefits of a Penn Dental Medicine education is the School’s ties to Penn’s other schools, like Wharton. The Leonard Davis Institute (LDI) of Health Economics, in conjunction with the Wharton’s Health Care Management Department, offers summer research fellowships to selected dental students. With more than 200 research fellows, LDI is considered one of the world’s leading university-based health policy research programs.

“It’s a wonderful interprofessional opportunity for our students,” says Susan Schwartz, Assistant Dean for Student Life.

A perfect fit: The 10-week internship in health services research, a multidisciplinary field which examines the political, social, economic, and environmental issues that impact health care, sounded just right to Joanna Ferguson (D’21), who was considering a dual degree in public health.

“I wanted to use the summer to experience something at Penn that I wouldn’t be able to do otherwise, and meet new people outside of the dental school,” she says.
Along with fellow interns Franco DeMayo (D’21) and Tim Wang (D’21), Joanna kicked off the experience with a trip to Seattle for the Academy Health Annual Research Meeting, which opened her eyes to the range and status of health care services research nationwide.

**Inspiring mentors:** Back at Penn, Joanna was paired with Dr. Kevin Jenkins, a postdoctoral fellow in the School of Social Policy and Practice, and Dr. Brenda Curtis, Assistant Professor of Psychology in Psychiatry at the Hospital of the University of Pennsylvania. Working with Dr. Jenkins, whose research often examines the roles of race and ethnicity in health care, Joanna spearheaded a survey of medical and osteopathic schools across the country to determine if they had an Office of Diversity, spoke with patients with kidney disease to determine how race and racism affected their treatment, and assisted on a survey of medical and nursing schools to determine the presence and contributions of black faculty members.

With Dr. Curtis, an expert on opioid addiction, Joanna analyzed an online pro-drug forum, following a conversation thread and examining hundreds of user comments to obtain information on when participants started using drugs and what substances they were using. She then performed a qualitative analysis on the findings.

Both experiences taught Joanna, who plans to pursue public health research and continue investigating disparities in health care, the importance of data and statistics in bringing about change. “I learned how to organize and utilize information in a way that can really help people,” she says.

**PENN DENTAL MEDICINE SUMMER RESEARCH PROGRAM: Working side-by-side with faculty experts**

For nearly 40 years, Penn Dental Medicine’s summer research program has provided students with the opportunity to hone their basic laboratory and clinical research skills while working side-by-side with faculty from Penn Dental Medicine and across the University. “Ours is such a well-established program that it’s become an important recruiting tool for dental students,” says Dr. Joseph DiRienzo, Assistant Dean for Student Research, who has run the program since 1993. “Most of our students have had research experience in college and are eager to continue their scientific endeavors.”

One of the applications chosen last summer came from Stefanie Kligman (D’21), who proposed a project with Dr. Hyun-Duc Nah-Cederquist, Clinical Associate Professor of Orthodontics at Penn Dental Medicine and a craniofacial orthodontist at the Children’s Hospital of Philadelphia, who specializes in treating cleft lip and palate.

“After taking a course with Dr. Nah, I was really excited by the incredible work she was doing,” Stefanie says. “I saw that she was changing people’s lives for the better.”

**Building valuable lab skills:** Stefanie was one of four Penn Dental Medicine students (along with Peter Rekawek (D’21), Jamie Silverberg (D’21), and Derek Swanson (D’21)) chosen to work on different projects with the same mouse model in Dr. Nah’s lab. Stefanie’s project involved manipulating two genes that control the development of cleft palate in mouse embryos. She examined three stages in the development of the embryos in an effort to pinpoint exactly when a cleft palate might develop, and when it might be corrected.
During the eight-week program, Stefanie learned to use a state-of-the-art scanning electron microscope to view the embryos. Her work also included dissecting, processing, and sectioning the embryos at just the right angle; making slides; staining the slides with different antibodies; and evaluating the resulting images. She values the technical skills she developed in the lab, and is gratified that results drawn from her work could eventually be extrapolated to humans.

“I learned so much in such a short time,” she says. “It’s inspiring to be at a school where there is research being done that will ultimately help us treat patients.”

SPIRITUALITY AND HEALTH SUMMER INTERNSHIP PROGRAM: Engaging with patients on religious beliefs

In many parts of the country, including Philadelphia, a dentist can expect to treat patients of every religion. Yet few dentists are trained in understanding and respecting a patient’s spiritual beliefs — and few are encouraged to examine their own.

A patient-centered internship offered through Penn’s Perelman School of Medicine, and open to dental students for the first time this summer, aims to change these norms.

“Issues of religion and spirituality will inevitably come up in conversations and interactions with patients,” says Dr. Horace DeLisser, Associate Professor of Medicine at Perelman and director of the program.

“Practitioners who are able to effectively and respectfully engage with patients on these issues will make connections and foster stronger relationships.”

With this in mind, the six-week Spirituality and Health Internship weaves together a variety of intensive learning experiences: hospital visits to patients and families, field trips to religious communities across the city, interviews with faculty members, and a shadowing experience with a chaplain. Training sessions in relational communication and mindfulness meditation also help students understand themselves and others.

Building trust: Neel Shah (D’21), a New York City native, completed the internship this summer with classmates Corey Smigiel (D’21) and Semele Liu (D’21). The interns spent most mornings in education and discussion sessions, and most afternoons at local hospitals, visiting patients. Most patients were open to talking, Neel says, and common conversational themes included patients’ worries about their families, their health, and their futures. While some people chose not to talk about spirituality, others did.

“I learned to be a good listener — not to take over the conversation, but to let the patient talk — and not to make assumptions about what they knew, but to explain everything thoroughly,” he says. “When people felt like they were being heard, they were more willing to trust me.”

The interns also visited a synagogue, a mosque, a Sikh temple, and a faith-based Christian community program. “Each trip was a whole different world,” Neel says. However, perhaps most meaningful to him was shadowing a chaplain at Penn Presbyterian Hospital’s Trauma Center and ICU.

“He was dealing with people at the most intense and debilitating times of their lives, and he was able to bring them a sense of calm,” he recalls. “He could defuse difficult situations and deliver unwelcome news with ease and elegance.”

Breaking new ground: Neel feels his internship will help him not just in his remaining years of dental school, but throughout his career. He hopes the lessons it teaches will become a standard part of the dental school curriculum.

“It’s breaking new ground in how we talk about spirituality in health care,” he says. “It made me proud to be a member of the Penn health community.”

PENN GLOBAL INTERNSHIP PROGRAM: Improving care around the world

The Penn Global Internship sends students around the world to make a difference in the lives — and health — of others. Penn Dental Medicine students Do Kwon (D’21) and Mateo Nelson (D’21) did just that, spending eight weeks in the tiny West African nation of The Gambia to evaluate dental needs.

Do, who grew up in Mexico, and Mateo, who is from Hawaii, both came to Penn Dental Medicine after working in creative fields and volunteering in underserved communities. Both were drawn to the internship by their interest in public health.

“I wanted an experience that would let me compare dentistry in the United States to dentistry in a developing country,” says Do, who hopes eventually to return to Mexico to practice.
For Mateo, the program was one of many valuable Penn resources he was eager to explore: “I chose Penn Dental in part because its campus is so well integrated with the University.”

Making an impact: Do and Mateo were assigned to Bwiam General Hospital, about two hours outside of the Gambian capital of Bajul. They arrived to find a single staff dentist with limited supplies and support staff, making extraction the only real treatment option. The dentist explained that a lack of oral health education, combined with a sugary diet, often results in early onset gross caries. If infected teeth are not pulled in time, tooth decay can progress to life-threatening conditions like cellulitis and Ludwig’s Angina.

“The Gambian people were so gracious and welcoming, and so willing to work with us,” says Mateo. “It’s the kind of place where you can’t help falling in love with the people,” adds Do.

Building momentum: Back at Penn, Do and Mateo are building interest among fellow students, and hope to form a new student organization to support efforts in The Gambia. They have proposed to the School administration an expanded internship program as well as a possible collaboration with the University of Gambia, which is launching its own dental school next year.

“We saw so much potential there,” says Mateo. “Now, our hope and challenge is to keep the momentum going.”

— By Juliana Delany

DO KWON (D’21) AND MATEO NELSON (D’21) PENN GLOBAL INTERNSHIP PROGRAM

A BREAK FROM THE ORDINARY

These formal programs are just some of the ways that the rising second-year Penn Dental Medicine students made the most of their summer. Others shadowed dentists or worked in clinics in their home towns or near campus, or pursued other career-enhancing experiences. Here a few other members of the DMD Class of ’21 share activities from their summer break.

Cole Bender (D’21) shadowed and interned at a multi-specialty practice in downtown San Diego. “It was an amazing learning experience!” he says. “It was incredibly fascinating to observe the dynamic between six different specialists rotating through the Scripps Center for Dental Care as they treat complex cases ranging from everyday composite fillings to sinus lifts, crown lengthening, and more.”

Melissa Nahcivan (D’21) completed research with Dr. Fusun Ozer in Penn Dental Medicine’s Department of Preventive and Restorative Sciences on the efficacy of different surface treatments in composite-composite bond strengths, and is preparing a paper on the project for publication. “It was a fun project and I’m glad I had a chance to work on it,” she says.

Terigray Nnanabu (D’21) and Herta Granado (D’21) served as the coordinators for Penn Dental Medicine’s Summer Mentorship Program for high school students, planning the daily program of activities for the participants and serving as instructors for the hands-on components. “The program brought 10 high school students to campus to experience and explore the world of dentistry at Penn,” says Terigray.
Dental Hygiene Alumni Association Elects Judith Zack Bendit (DH’81) As New President

The Penn Dental Medicine Dental Hygiene Alumni Association has new leadership, with the members having elected Judith Zack Bendit (DH’81) President of the Association at the group’s annual meeting May 12, 2017. Bendit succeeds Jaclyn Gleber (DH’74), who served in the role for more than two decades. Bendit of Boca Raton, Fla., has more than 45 years of experience in dentistry as a speaker, author, educator, and clinician. She is a member of the Penn Dental Medicine Alumni Society Executive Committee and a distinguished member of both the American Dental Hygiene Association and the Academy of Dental Hygiene. Bendit is also a nationally renowned speaker on dental topics and products.

Penn Dental Medicine had an organized Dental Hygiene program of instruction from 1922 through the 1980’s. The Dental Hygiene Alumni Association aspires to engage the more than 1,400 living graduates. The group also works closely with leadership at Penn Dental Medicine to facilitate partnerships with colleagues in the profession and to pursue common goals such as health promotion, disease prevention, improving access to care, and advancing evidence-based practice.

Recently, the group launched a new Facebook group for hygiene alumni at www.facebook.com/groups/PennDentalHygiene. The group has also established a Dental Hygiene Research & Innovation Fund to support hygienists collaborating with Penn Dental Medicine faculty to improve dental practice and patient outcomes. All hygiene alumni are encouraged to return for next year’s reunion, Friday, May 17, 2019, at Penn Dental Medicine.

MEET DEAN WOLFF IN SOUTH FLORIDA

A trio of events has been organized January 12–14, 2019 to introduce Dean Mark Wolff to our lively contingent of Penn Dental Medicine alumni and friends living in and visiting South Florida. For more information and to register visit: www.dental.upenn.edu/events

JANUARY 12: Dean Wolff will lead off a dynamic CE program, “Aging & Health: What Oral Health Care Providers Need to Know” (4 CEUs) at Lakeside Terrace, in Boca Raton. The program, which also features three Penn Dental Medicine alumni, is organized by the Penn Dental Medicine Dental Hygiene Alumni Association.

JANUARY 13: Enjoy Brunch at the Breakers, Palm Beach.

JANUARY 14: Join us for Happy Hour at Cibo Wine Bar, Coral Gables.

FY18 Giving & Engagement

By the Numbers

TOTAL GIVING

$8.3M TOTAL GIFT COMMITMENTS TO PENN DENTAL MEDICINE IN FY18

11.2% of alumni made a gift

39.3% of alumni donors have given for 5 or more years consecutively

CAPITAL & ENDOWED GIVING (RESTRICTED)

$8.3M RECEIVED TOWARD CAPITAL & ENDOWED INITIATIVES, INCLUDING $3.66M IN NEW GIFTS & PLEDGES

ENGAGEMENT

1,104 ATTENDED A PENN DENTAL MEDICINE EVENT IN FY18 (INCR. OF 14.1% OVER LAST YEAR)

940 alumni have added their practices to Find a Penn Dentist, www.dental.upenn.edu/map

414 participated in one of Penn Dental Medicine’s new virtual lectures

ANNUAL GIVING (UNRESTRICTED)

$505K GIFTS RAISED TOWARD UNRESTRICTED ANNUAL FUNDS AT PENN DENTAL MEDICINE

947 annual giving donors (12% were young alumni, classes 2008-2018)

74 Penn Dental Medicine Benjamin Franklin Society members
Curious by nature and technologically astute, Dr. Levin thought there could be more stories those teeth could tell about this particular boy’s life in England and the new colony. With the visit fresh in his mind, he called the exhibit curator, Dr. Douglas Owsley, Division Head of Physical Anthropology at the Museum of Natural History, who, along with Michael Lavin, Director of Collections and Conservation at Jamestown Rediscovery, agreed to have Dr. Levin further examine the skull and teeth when the exhibit came off display the following year.

The boy, officially identified as JR1225B by the Jamestown Rediscovery staff, was one of 104 passengers — 100 men and four boys — on three ships that left England to establish a business outpost in the New World for the Virginia Company of London. These early settlers endured harsh conditions — disease and starvation, as well as attacks from the native Virginia Indians. Within a year, almost half of the original settlers were dead.

Dr. Levin says once the “invaluable remains” were in his office, he was able to examine the boy’s skull and teeth utilizing cone beam CT, perform a microscopic examination, and take a full-mouth series of radiographs. The resulting studies not only showed that the tooth had been fractured about eight years earlier than previously thought, but it was a repository for impacted food over that time.

The SERVANT BOY was little more than 15 years old and had endured an arduous five-month journey across the Atlantic Ocean. Then, just two weeks after landing at Jamestown, he was killed by the Virginia Indians under Chief Powhatan while planting corn in a field.

His short life, which came to an end in 1607 in what is now Jamestown, Virginia, may have ended tragically, but now, more than 400 years later, his remains, and in particular his teeth, are yielding new clues about what life was like for early colonists in the New World.

A central character in this true-life mystery is Penn Dental Medicine alumnus Martin Levin (D’72, GD’74), who has had an endodontic practice in Chevy Chase, Md., since 1975. “Many times, the only remains of early settlers are their teeth,” says Dr. Levin. “The enamel and dentin is more resistant to the breakdown that bones succumb to, and soft tissue goes away quickly.”

Dr. Levin’s involvement in this historic project started with a visit about five years ago to the Smithsonian National Museum of Natural History in nearby Washington, D.C. to view the exhibit “Written in Bone, Forensic Files of the 17th Century Chesapeake.” It featured the work of the Jamestown Rediscovery project, which is preserving the historic site — the first permanent English settlement in North America — through archeological and scientific investigation.

“Many times, the only remains of early settlers are their teeth.”

When Dr. Levin first saw the skeletal remains of the teenage boy at the Smithsonian Museum, his skull revealed a fractured mandibular incisor that had led to an infection and large abscess. The exhibit indicated the fracture had likely happened during the voyage across the ocean.

Observing the size of the apical lesion and wear on the fractured tooth, Dr. Levin questioned the timing of the trauma and resulting abscess, believing that the injury had occurred long before the ship left England.

What more could this tooth tell them, he wondered? Dr. Levin proposed removing the impacted food and infected tissue from the root canal on the 400-year-old tooth for analysis. During a six-hour procedure in a clean-room, he painstakingly removed the root canal contents of the fractured tooth in 12 sections at different layers. Most of the samples have been preserved for later study, with the notion that future technological advances may yield even more information.
To help with the analysis, Dr. Levin enlisted the help of experts, including D. Joshua Cohen, MD, a biomedical engineer at Virginia Commonwealth University’s Nanomaterials Characterization Core, where micro-CT, scanning electron microscopy and energy dispersive X-ray spectroscopy technology were used to assess size, shape and volume of the particulate matter. Barry Pass, DDS, PhD, an oral and maxillofacial radiologist, also provided additional interpretation of the radiographic imaging.

Other collaborators included Dr. Janet Monge, Curator-in-Charge of the Physical Anthropology Section in the Penn Museum and Adjunct Professor, who has experience in skeletal biology and dental histology.

A trip to Colorado brought Dr. Levin and some of the team to the Paleo Research Institute, where archaeobotanist Linda Scott Cummings identified the fibers, pollen and food particles that had been packed into the root canal that Dr. Levin had emptied. Grain remnants that could not have been from the New World reinforced the finding that the injury had happened years earlier. Evidence of corn indicated the boy might have been eating some of the corn he was planting in the Virginia field. Cotton fibers also were found — a possible attempt by the boy to protect the exposed canal from food impaction.

Michael Lavin, of Jamestown Rediscovery, says Dr. Levin’s curiosity based on his astute observations at the Smithsonian exhibit helped jumpstart these additional layers of research on the boy who was killed just weeks after landing on Virginia soil. He says Dr. Levin, who is currently helping to research the remains of what are believed to be those of Sir George Yeardley, Lord Governor of Virginia, is “one of first phone calls I make if I have any questions of a dental nature.”

For his part, Dr. Levin says he is thrilled that his knowledge and advanced dental technology has enabled him to help archeologists and historians learn more about what life — and death — was like for these early settlers.

“We are stewards of these sites,” Dr. Levin says. “These specimens belong to America, and we must make sure care is taken so the best science is used.”

While pursuing this newfound passion for forensic odontology, Dr. Levin continues to maintain strong ties with Penn Dental Medicine as well, and throughout his career, he has served in a number of leadership roles at the School. He currently serves as Chair of the Dean’s Council, as well as an Adjunct Professor in the Department of Endodontics. He was also on the Board of Overseers for more than 10 years, including three years as Chair (2005 to 2008), and remains an ex officio member. In addition, Dr. Levin served the American Association of Endodontists as Co-Chair of the Joint Special Committee of the American Association of Endodontists and the American Academy of Oral and Maxillofacial Radiology on the use of Cone Beam Computed Tomography in Endodontics.

As a result of the many connections he has made through the Jamestown project, Dr. Levin adds that he is exploring with Penn Dental Medicine and the University of Pennsylvania Museum the possibility of these schools cohosting an international symposium on forensic odontology. “It’s a fascinating field,” he says. “While we are just beginning discussions on a symposium, I hope we can bring together leaders in the field to share their expertise.”

— By Debbie Goldberg
Penn Dental Medicine welcomed back alumni May 11–12 for Alumni Weekend 2018 — the reunion year for classes ending in “3” or “8”. Save the date for Alumni Weekend 2019, May 17–18!

1 Penn Dental Medicine’s Dental Hygiene alumni at Alumni Weekend 2018 with Interim Dean (at the time), Dana Graves.

2 Alumni peruse old yearbooks and memorabilia from their time in dental school.

3 Alumni and their families see the newly-renovated spaces on our student-led tours of the School.

4 Current students join alumni at our annual Luminary Society Luncheon, a special event for those celebrating a 50th reunion or beyond.
5 Interim Dean (at the time), Dana Graves (center) and Alumni Society President, Eric Spieler (D’84, left), celebrate the winners of the 2018 Thomas Evans Achievement Award, Alumni Awards of Merit, and Honorary Alumni Awards.

6 Members of the Class of 2003 and their families prepare for the Alumni Parade down Locust Walk.

7 The Class of 1993 enjoy each other’s company at the Alumni Picnic.

8 Penn Dental Medicine alumni celebrate their Penn pride as they await the start of the Alumni Parade.

9 The Penn Dental Medicine Dean’s Council enjoyed seeing the new Robert I. Schattner Clinic.
1960s

Nicholas Trofimuk (D’68) retired from dentistry and is now one of the foremost fine art photographers in the country. Represented by Photogenesis Gallery in Santa Fe, NM, his work has been collected throughout the country, as well as by museums and other prestigious private collections.

After practicing general dentistry for over 40 years, Arnold Galler (D’69) retired, and now volunteers at the dental unit of the VA hospital in University City. In addition, he enjoys traveling, photography, and spending time with his wife Ina, children, and grandchildren.

1970s

Jaclyn Gleber (DH’74) received the Colgate/ADHA Community Outreach Award at the ADHA 95th Annual Conference for her noteworthy contributions to community outreach programs in relation to preventative oral health care.

W. Grant Hennigar (D’74) represented the USA in the Decathlon in the World Masters Track and Field Championships in Malaga, Spain this September.

Karen Bradley (D’79, WG’80) retired to Beaufort, S.C. in 2014 after over 35 years in academic health center/university administration. She spent 27 of those years at the University of Florida in Gainesville, Fl. She and her husband, Jim Pettigrew (GD’80), have been married for 39 years!

Isaac Perle (D’79) moved to New Jersey three years ago to start a new practice. He is now up to 20 grandchildren, and started teaching at Penn. His reports that his clinic in Israel is as busy as ever, estimating it has treated 5 to 10% of the entire population of Jerusalem since it opened in 1985.

1980s

Judy Zack Bendit (DH’81) enjoyed meeting up with classmates, Paula Brown Gibney (DH’82), Barbara Gregor Vito (DH’81), and Karen Larrimore Beauchemin (DH’81) at the South Jersey Dental Hygiene Alumni Association meeting.

The Osteo Science Foundation named George Feldman (D’83) one of the Peter Geistlich Research Award grantees. Dr. Feldman hopes to create a more effective treatment for Medically Related Osteonecrosis of the Jaw (MRONJ).

Ann Troy Rosenhoover (DH’83) and her husband, Steve, recently celebrated their 31st anniversary. She is the proud mother of Andrew and Timothy. She is practicing full time in the Reading, Pa. area, and still feels fortunate to love her profession.

1990s

Richard D. Riddle (D’84) was accepted as a fellow in the American College of Dentists, the nation’s oldest major honorary organization for dentists, which works to elevate the profession through programs in areas such as ethics and leadership.

Ann Hunsicker-Morrissey (D’88) was officially appointed president of the Pennsylvania Academy of General Dentistry in April. Dr. Hunsicker-Morrissey is in private practice in Hellertown, Pa.

During the Academy of General Dentistry’s Hill Day 2018, Michael Lew (D’83) and Roopali Kulkarni (D’19, GR’19) visited the offices of California Senators Diane Feinstein and Kamala Harris. They discussed the importance of oral health literacy and dental general practice residencies in addressing access-to-care issues.

Kirk Zeger (D’98) enjoyed a fishing trip to Raystown Lake with Dr. Elliot V. Hersh, Professor of Pharmacology, where they managed to land a 36-inch, 18-pound striped bass.

2000s

David Galler (D’03) was named Senior Vice President of Orthodontic Services at Aspen Dental Management, Inc. in late August. His main focus will be rolling out Invisalign to the 700 Aspen Dental offices throughout the nation. Dr. Galler also serves as the President of the American Academy of Clear Aligners.

The Pennsylvania Dental Association (PDA) honored Thomas Sollecito (D’89, GD’91) with the 2018 PDA Recognition Award this past April. The award specifically recognized his contributions to clinical care, research, and teaching in the areas of oral mucosal diseases, HIV dental treatment, and head and neck cancer.

Jennifer Beaudin (D’04, GED’04) has completed her third year as the Staff Oral & Maxillofacial Surgeon in the VA Medical Center, treating our nation’s veterans alongside her husband Ipinder Puri (D’03), Staff Dentist. They will be welcoming their second child to the family this November!

Roy T. Chen (D’06) received the prestigious Fellowship Award of the Academy of General Dentistry at the AGD’s scientific session on June 9 in New Orleans.

2010s

Aws Aldarkazali (D’13) received the Fellowship Award from the Academy of General Dentistry at the AGD’s annual meeting in New Orleans this past June. The award recognizes Dr. Aldarkazali’s commitment to continuing education, having completed over 500 hours of CE in addition to a rigorous exam. He dedicated the award to his wife, Ruth, their son, Ari, and all of his wonderful patients. Dr. Aldarkazali is currently in private practice in North Richland Hills, Texas.

Scott Drucker (C’10, D’13) was recognized as one of the members of Crain’s Chicago Business “20 in their 20’s.” Dr. Drucker serves as President of the online dental supply company, Supply Clinic.

Seyar Baqi (D’14) and Edward Bayley (D’14), in collaboration with Dr. Baqi’s brother, Farhad, developed the Curing Cube. Their device uses light to cure resin and composite materials at a faster rate for use in their dental practices. They are hoping to take the product to market once their commercial version has been fully developed.

Catherine Lee (D’18, GD’20) married Dr. Andrew Wong on August 18, 2018 in Canmore, Alberta. Many Penn Dental Medicine classmates and colleagues were in attendance, including Donald Yu (D’79), Jessica Yu (GD’10), Sehe Han (D’18), Lovika Kalra (D’18, GD’20), Sejal Bhayani (D’18), Elliott Hersh (Professor, Department of Oral and Maxillofacial Surgery/Pharmacology), Koral Modi (D’18), Mike Hayes (D’18, GD’20), and Ben Truong (D’19).

Jane Han (D’16) was recently awarded the 2018 Federal Services Award by the American Association of Women Dentists (AAWD). She currently serves as the only dentist aboard the USS New York, homeported in Mayport, Fla. Dr. Han was officially presented her award at the AAWD 97th Annual Conference in Savannah, Ga., in early October.

Belle J. Chen (D’17) married Hans Hsu, DDS, on May 19, 2018 at Terrain in Glenn Mills, Pa.

JV Kracke (D’17, GD’19) and Kristianne Macaraeg (D’17, GD’19) were married on Sunday, May 27, 2018 at The Founders Inn and Spa in Virginia Beach. Many of their classmates helped celebrate their special day, including Catherine Campbell (D’17), Sierra van den Dries (D’17), Maria Hodapp (D’17), Heather Albert (D’17, GD’19), Sara Gholam (D’17) and Jack Davies (D’17).

Colleen O’Neill (D’14) and her husband, Michael Segall (D’12), have been traveling the globe with the Army for the past few years. They were stationed in Germany from 2016–2018, where they visited 19 countries! They have returned to Texas for the next two years while Dr. O’Neill completes her pediatric dental residency at Texas A&M College of Dentistry.

DID YOU MAKE THE HONOR ROLL?
FIND OUT IN THE 2018 ALUMNI GIVING REPORT

www.dental.upenn.edu/report

Annual Alumni Ski Trip
February 27 - March 3, 2019
Join us in Vail, Colo., for a unique continuing education experience. Ski in the afternoon and attend lectures in the morning and evening (9 CE credits).

The program topics span disciplines. Speakers include Penn Dental Medicine faculty members Dr. Sam Kratchman, Dr. Bekir Karabuck, and Dr. Markus Blatz, along with fellow alumni Dr. Arturo Llobell (GD’15), Dr. Anil Idiculla (GD’06).

Learn more and register at www.dental.upenn.edu/ski2019

Questions? Contact Maren Gaughan • gaughan@upenn.edu • 215-898-8952
IT IS WITH GREAT ADMIRATION that the Penn Dental Medicine community remembers the work and legacy of Dean Emeritus Dr. D. Walter Cohen (C’47, D’50), one of the School’s most highly respected graduates and educators, who passed away June 29, 2018. Few individuals have had such a profound impact on dental education and the field of dental medicine overall as Dr. Cohen.

“Dean Cohen not only shaped the future of Penn’s School of Dental Medicine, but he shaped the dentistry practice worldwide. Individuals affecting generational changes touch us so rarely, but the Penn Dental community has the privilege of having been touched by Walter,” said Dr. Mark S. Wolff, Morton Amsterdam Dean of Penn Dental Medicine.

Dr. Cohen’s service as part of the Penn Dental Medicine faculty spanned more than three decades. After earning his DDS here in 1950 and completing a research fellowship in pathology and periodontics at Beth Israel Hospital in Boston, he returned to Penn, joining the School’s faculty in 1951 and advancing to full professor in 1963 — the same year he established the School’s Department of Periodontics and became its first Chairman. By the time he was named Dean in 1972, he had been Associate Dean for two years and was a nationally known investigator in periodontal disease.

During his tenure as Dean, which ran through 1983, Dr. Cohen was instrumental in enhancing both the national and global prominence of Penn Dental Medicine and implementing innovative educational programs. He spearheaded the Penn Experiment, detailed in his 1985 book, “Educating the Dentists of the Future: The Pennsylvania Experiment,” and the educational models he implemented served as the basis for Penn Dental Medicine’s current clinical education.

Following his deanship at Penn Dental Medicine, Dr. Cohen became the first Presidential Scholar at the University of California San Francisco. In 1986, he was recruited to become the President of the Medical College of Pennsylvania, serving in that role until 1993 and then as Chancellor until 1998, when he was named Chancellor Emeritus.

In 1995, he also helped create the Executive Leadership Program for Women in Academic Medicine and Dentistry (ELAM) at Drexel University. Since its founding, more than 1,000 women have graduated from the program, many advancing to leadership roles in dental and medical schools around the country.

Indeed, Dr. Cohen’s vision and leadership made an impact across the country and around the world. Among his many honors, he received the Gold Medal from the American Academy of Periodontology and was only the third American to earn honorary membership in the British Society of Periodontology. The French government bestowed its Legion of Merit Award to Dr. Cohen in recognition of his significant contributions to dental education in France; and in 1997, the Hebrew University of Jerusalem dedicated the D. Walter Cohen, D.D.S. Middle East Center for Dental Education in Israel. Dr. Cohen was honored with membership in the Institute of Medicine of the National Academies of Science in 1980 and received eight honorary doctorates from universities around the world.

Dr. Cohen was a second-generation dentist; his father, Dr. Abram Cohen, was a 1923 Penn Dental Medicine graduate, and Dr. Cohen practiced periodontics in the same Philadelphia practice his father established, beloved by generations of patients. Dr. Cohen remained involved at the School long after his deanship and up until the time of his passing, serving on the Board of Overseers (1989–1995) and the Alumni Board, and speaking frequently at School events.

A memorial celebrating the life of Dr. Cohen was held at Penn Dental Medicine on September 21, and a special continuing education program organized by the Cohen Amsterdam Education Foundation was held September 22 at The Westin Philadelphia, also honoring Dr. Cohen’s legacy.

**IN MEMORIAM**

**REMEMBERING MEMBERS OF THE PENN DENTAL MEDICINE COMMUNITY**

**Remembering Dr. D. Walter Cohen, C’47, D’50**
### 2018-2019 Calendar

#### Upcoming Events & Programs

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<th>Month</th>
<th>Event</th>
<th>Location</th>
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<td><strong>November</strong></td>
<td>CDE: Alumni Lecture Series Tricalcium Silicates in the Era of Vital Pulp Therapy</td>
<td>Penn Dental Medicine</td>
<td>Penn Dental Medicine or Attend Virtually</td>
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<tr>
<td><strong>November 15, 2018</strong></td>
<td>CDE: Penn Micro Prosthodontics Course</td>
<td>Penn Dental Medicine</td>
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<td><strong>November 16-17, 2018</strong></td>
<td>CDE: Nitrous Oxide/Oxygen Analgesia Certification</td>
<td>Penn Dental Medicine</td>
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<tr>
<td><strong>November 17, 2018</strong></td>
<td>CDE: Alumni Lecture Series with Dean Mark Wolff</td>
<td>Penn Dental Medicine</td>
<td>Penn Dental Medicine or Attend Virtually</td>
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<td><strong>November 26, 2018</strong></td>
<td>Greater NY Dental Meeting Alumni Reception</td>
<td>The Penn Club NYC, New York, NY</td>
<td>Greater NY Young Alumni After-Party Stout Flagship, New York, NY</td>
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<td><strong>December 8-9, 2018</strong></td>
<td>CDE: Penn Center for TMJ Disease 2nd Biannual Symposium</td>
<td>Jordan Medical Education Center</td>
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<td><strong>January 12, 2019</strong></td>
<td>CDE: Aging &amp; Health: What Oral Health Care Providers Need to Know</td>
<td>Boca Raton, FL</td>
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<td><strong>January 13, 2019</strong></td>
<td>Dean’s Welcome Reception</td>
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<td><strong>January 14, 2019</strong></td>
<td>Dean’s Welcome Reception</td>
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<td><strong>February 1, 2019</strong></td>
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<td><strong>February 7, 2019</strong></td>
<td>CDE: Alumni Lecture Series with Dean Mark Wolff</td>
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<td><strong>February 21, 2019</strong></td>
<td>Mid-Winter Meeting Alumni Pop-Up Reception</td>
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<td><strong>February 27 – March 3, 2019</strong></td>
<td>CDE: Alumni Ski Trip</td>
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<td><strong>March 1-2, 2019</strong></td>
<td>CDE: Penn Laser Symposium</td>
<td>Penn Dental Medicine</td>
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<td><strong>March 6, 2019</strong></td>
<td>Campaign Kickoff Celebration</td>
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<td><strong>March 14, 2019</strong></td>
<td>Academy of Osseointegration (AO) Alumni Reception</td>
<td>Washington, DC</td>
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<td><strong>April 2, 2019</strong></td>
<td>Campaign Kickoff Celebration</td>
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<tr>
<td><strong>April 7-13, 2019</strong></td>
<td>CDE: National Prosthodontics Awareness Week</td>
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<td><strong>April 11, 2019</strong></td>
<td>American Association of Endodontics (AAE) Alumni Reception</td>
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<td><strong>May 4, 2019</strong></td>
<td>American Association of Orthodontics (AAO) Alumni Reception</td>
<td>University of Pennsylvania</td>
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<td><strong>May 14, 2019</strong></td>
<td>Senior Farewell</td>
<td>The Bellevue, Philadelphia, PA</td>
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<td><strong>May 16, 2019</strong></td>
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<td><strong>May 17-18, 2019</strong></td>
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<td><strong>May 23, 2019</strong></td>
<td>American Academy of Oral Medicine (AAOM) Alumni Reception</td>
<td>New Orleans, LA</td>
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Learn More...

Visit [www.dental.upenn.edu/events](http://www.dental.upenn.edu/events) or call 215-898-8951 for information on alumni events.

Visit [www.dental.upenn.edu/cde](http://www.dental.upenn.edu/cde) or call 215-573-6841 for information on continuing dental education programs.
PENN DENTAL MEDICINE ALUMNI SOCIETY
2018–2019 EXECUTIVE COMMITTEE

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Wesam El Shafee, D’12
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Wendy Halpern, D’99, GD’02, GD’03
Sehe Han, D’18
JV Kracke, D’17, GD’19
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Rachel Levarek, D’11
Jeff Li, D’12
Helen Mo, D’16
Mano Mozaiffarian, D’06
Ngozi Okoh, D’12
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